Emerson

SERVICE MANUAL

MODEL GP328

CAUTION

Before servicing the chassis, read the “IMPORTANT SERVICE SAFETY INFORMATION” on pages 1 and 2 of this manual.

14” REMOTE CONTROL COLOR TELEVISION

WITH ON SCREEN DISPLAY

SPECIFICATIONS

AC POWER INPUT ..... 108V to 132V, 60Hz
AC POWER CONSUMPTION ..... 55Watts @ 120V
PICTURE SIZE ..... 14”(MEASURED DIAGONALLY)
FOCUS LENS ..... Bipotential
AUDIO POWER OUTPUT RATING ..... 1.2W @ 10% THD
FREQUENCY RESPONSE ..... 250Hz 0±3dB
6KHz -3±3dB
SPEAKER SIZE ..... 50 x 70mm /OVAL
VOICE COIL IMPEDANCE ..... 8 ohms @ 1KHz
ANTENNA INPUT IMPEDANCE ..... 75 ohm Coaxial Input
RECEIVING CHANNELS
VHF 2-13
UHF 14-69
CATV 01-97 (5A-A3)
98-99 (A2-A1)
14-12 (A-1)
23-36 (J-W)
37-65 (AA-FFF)
66-125 (GGG-125)
INTERMEDIATE FREQUENCY
Picture IF Carrier Frequency 45.75MHz
Sound IF Carrier Frequency 41.25MHz
Color IF Carrier Frequency 42.17MHz
WEIGHT ..... 9.5 Kgs
DIMENSIONS ..... 376(W) x 341(H) x 376(D) mm

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SERVICE PUBLICATION

Note. All the specifications and features are subject to change without notice.

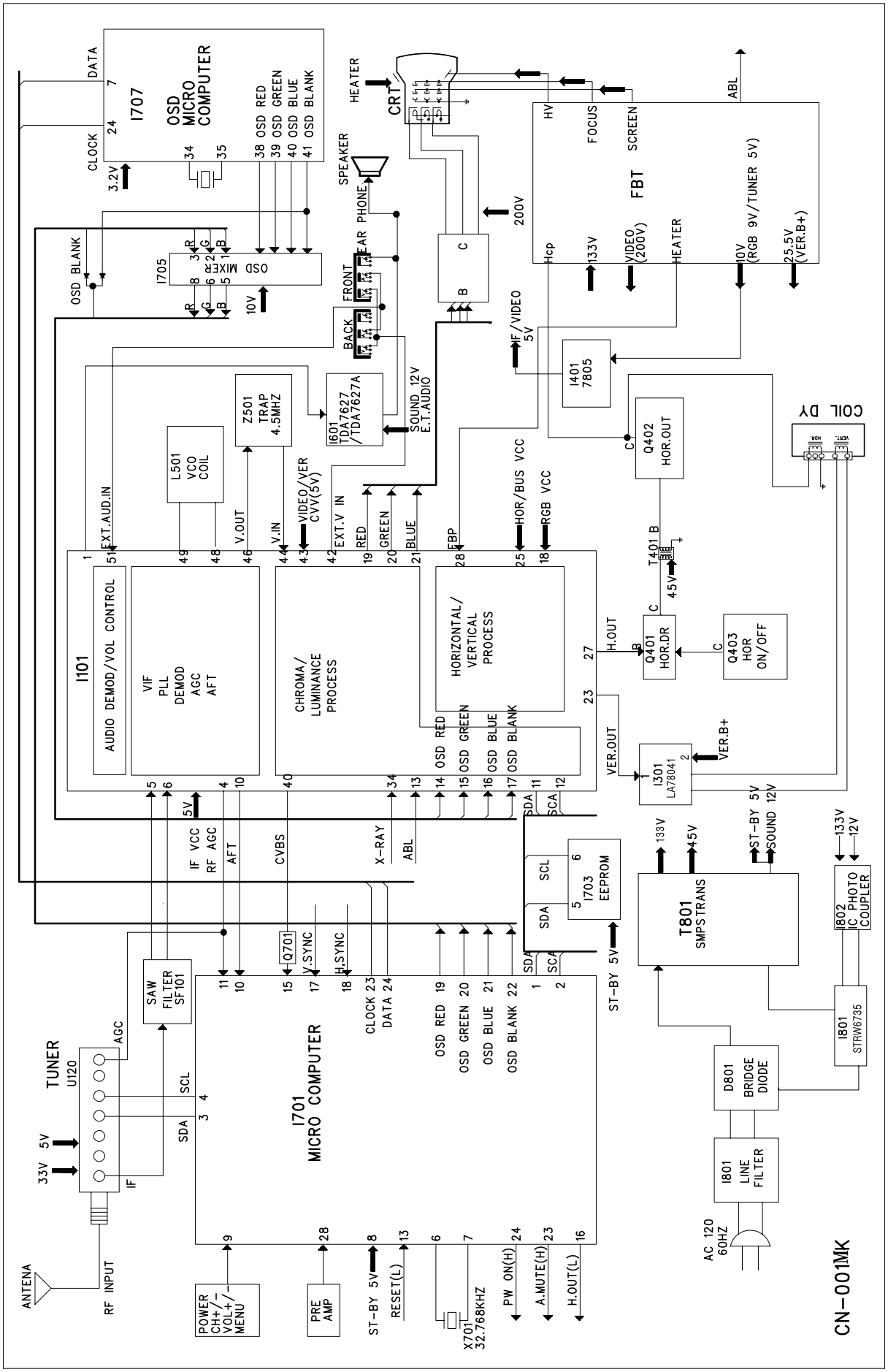
SUBJECT : IMPLOSION

1. All direct viewed picture tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage during installation. Avoid scratching the tube. If scratched, replace it.
2. Use only recommended factory replacement tubes.

SUBJECT : TIPS ON PROPER INSTALLATION

1. Never install any receiver in closed-in recess, cubbyhole or closely fitting shelf space over, or close to heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as : Outdoor patio installations where dew is a factor. Near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct rear venting. The customer should also avoid the use of decorative scarves or other coverings which might obstruct ventilation.
4. Wall and shelf mounted installations using a commercial mounting kit, must follow the factory approved mounting instructions. A receiver mounted to a shelf or platform must retain its original feet(or the equivalent thickness in spacers) to provide adequate air flow across the bottom, bolts or screws used for fasteners must not touch any parts or wiring. Perform leakage test on customized installations.
5. Caution customers against the mounting of a receiver on sloping shelf or a tilted position, unless the receiver is properly secured.
6. A receiver on a roll-about cart should be stable on its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against the use of a cart or stand which has not been listed by underwriters laboratories, inc. For use with their specific model of television receiver or generically approved for use with T.V.'s of the same or larger screen size.

BLOCK DIAGRAM



IMPORTANT SERVICE SAFETY INFORMATION - Guidelines for Color Television Receivers

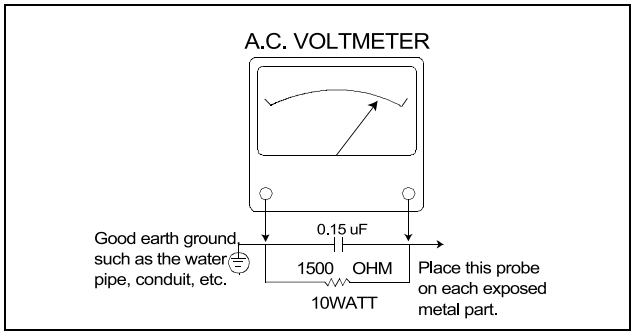
CAUTION : Do not attempt to modify this product in any way. Unauthorized modifications will not only void the warranty, but may lead to your being liable for any resulting property damage or user injury.
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines. To do otherwise, increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

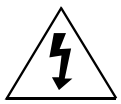
After the original service problem has been corrected, a check should be made of the following:

SUBJECT : FIRE & SHOCK HAZARD

1. Be sure that all components are positioned in such a way as to avoid possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Never release a repair unless all protective devices such as insulators, barriers, covers, shields, strain reliefs, and other hardware have been reinstalled per original design.
3. Soldering must be inspected to discover possible cold solder joints, frayed leads, damaged insulation (including A.C. cord), solder splashes or sharp solder points. Be certain to remove all loose foreign particles.
4. Check for physical evidence of damage or deterioration to parts and components, and replace if necessary. Follow original layout, lead length and dress.
5. No leads or components should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. All critical components such as fuses, flameproof resistors, capacitors, etc. must be replaced with exact factory types. Do not use replacement components other than those specified or make unrecommended circuit modifications.
7. After re-assembly of the set always perform an A.C. leakage test on all exposed metallic parts of the cabinet, (the channel selector knob, antenna terminals, handle and screws) to be sure the set is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this test. Use an A.C. voltmeter, having 5000 ohms per volt or more sensitivity, in the following manner: connect a 1500 ohm 10 watt resistor, paralleled by a 0.15 mfd. 150V A.C. type capacitor between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the A.C. voltage across the combination of 1500 ohm resistor and .15 MFD capacitor. Reverse the A.C. plug and repeat A.C. voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts R.M.S. This corresponds to 0.5 milliamp A.C. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

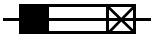

A.C. VOLTMETER
0.15 uF
Good earth ground such as the water pipe, conduit, etc.
1500 OHM
10WATT
Place this probe on each exposed metal part.

GRAPHIC SYMBOLS :



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the service personnel to the presence of uninsulated "dangerous voltage" that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the service personnel to the presence of important safety information in service literature.



Fuse symbol is printed on pcb adjacent to the fuse, with "RISK OF FIRE REPLACE FUSE AS MARKED". The symbol is explained in the service manual with the following wording or equivalent.

"CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE (4A, 125V)" and "**ATTENTION**: AFIN D'ASSU UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE "4A, 125V".

SUBJECT : X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of X-radiation.The only potential source of X-rays in current T.V. receivers is the picture tube.
   However, this tube does not emit X-rays when the high voltage is at the factory specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high voltage supply and, under certain circumstances, may produce radiation in excess of desirable levels.
2. Only factory specified C.R.T. anode connectors must be used. Degaussing shields also serve as X-ray shield in color sets. Always re-install them.
3. It is essential that the serviceman has available an accurate and reliable high voltage meter. The calibration of the meter should be checked periodically against a reference standard. Such as the one available at your distributor.
4. When the high voltage circuitry is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly. We suggest that you and your service organization review test procedures so that voltage regulation is always checked as a standard servicing procedure. And that the high voltage reading be recorded on each customer's invoice.
5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage compartment.
   Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.
6. Refer to HV, B+and Shutdown adjustment procedures described in the appropriate schematic and diagrams(where used).

ALIGNMENT INSTRUCTIONS

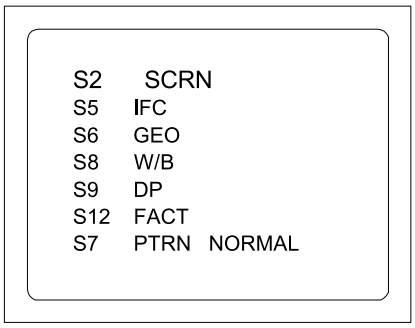
1. SERVICE MODE ADJUSTMENTS

Follow the steps below whenever service adjustment is required. See Table- A and Table- B to determine if service adjustments are required.

1) How to enter the service mode using the user remote control.

- Turn the set on.
- Direct the remote control to the reception window of TV.
- Push buttons of remote control in sequence as follows.

  1 → MUTE → DISPLAY → MUTE
- Then, the screen will appear as follows.



- Using the channel up or channel down button, select the item you wish to adjust.
  (The color of selected item turns into the red.)
- Press the volume up or down button to enter in the service mode you wish to adjust.

2) How to memorize the adjusted values in the service mode.

- After all of adjustments, adjusted data is memorized when you press the DISPLAY button on the remote control.

Table-A : Adjust the values of service mode when a part is replaced.

<table>
<tr><th rowspan="2">PART REPLACED</th><th colspan="2">ADJUSTMENT</th><th rowspan="2">NOTES</th></tr>
<tr><th>NECESSARY</th><th>UNNECESSARY</th></tr>
<tr><td>I701
(U-COM)</td><td></td><td>O</td><td>Data is stored in I703.</td></tr>
<tr><td>I101
(MAIN)</td><td></td><td>O</td><td></td></tr>
<tr><td>I703
(EEPROM)</td><td>O</td><td></td><td>Initial setting values are written from I701.
Adjusting Items
<table><tr><td>S5</td><td>RFAGCD</td></tr><tr><td>S6</td><td>H.PHASE/V.POSI/V.SIZE</td></tr><tr><td>S8</td><td>RD/BD/RB/GB/BB</td></tr><tr><td>S9</td><td>Subbrightness</td></tr></table></td></tr>
<tr><td>CRT</td><td>O</td><td></td><td>Adjust items related to picture tube only.(White Balance adjustment)</td></tr>
</table>

Table-B

MODE	ADJUSTMENT ITEMS	DATA		REMARKS
		INITIAL	RANGE	
S2	Screen Adjustment	-	-	
S5	Auto RF AGC	-	-	
	Video Level (VIDEOL)	7	0 ~ 7	Must be set to 7
	RF AGC Delay (RFAGCD)	*	0 ~ 63	Align RF AGC threshold
	FM Level (FM.LEV)	8	0 ~ 31	Must be set to 20
	AGC Point	3.75	-	Select AGC reference voltage
	A/D VALUE	-	-	
S6	Horizontal Phase(H.PHASE)	*	0 ~ 31	Align sync to flyback pulse, using internal cross pattern(S7)
	Vertical Position (V.POSI)	*	0 ~ 63	Align vertical DC bias, using internal cross pattern(S7)
	Vertical Size (V.SIZE)	*	0 ~ 127	Align vertical amplitude, using internal cross pattern(S7)
	NO SD POWER OFF	YES	-	Automatically turn off in 15min for no received signal.
	Vertical S-Correction (V SC)	0	0 ~ 31	Must be set to 6
	Vertical Linearity (V LIN)	20	0 ~ 31	Must be set to 16
S7	Internal Black	-	-	Display internal BLACK pattern
	Internal 100% White	-	-	Display internal 100% WHITE
	Internal 60% White	-	-	Display internal 60% WHITE
	Internal Cross Pattern	-	-	Display internal CROSS pattern
S8	Red Drive (RD)	*	0 ~ 127	Align RED OUT AC level
	Green Drive (GD)	10	0 ~ 15	Must be set to 10
	Blue Drive (BD)	*	0 ~ 127	Align BLUE OUT AC level
	Red Bias (RB)	*	0 ~ 255	Align RED OUT DC level
	Green Bias (GB)	*	0 ~ 255	Align GREEN OUT DC level
	Blue Bias (BB)	*	0 ~ 255	Align BLUE OUT DC level
S9	Subbrightness	*	0 ~ 127	Align common RGB DC level
	Contrast	10	0 ~ 27	
	Tint	27	0 ~ 27	
	Color	15	0 ~ 27	
S12	Forwarding Mode	-		Factory Initialization

Note : Items marked with '*' vary. Please confirm.

2. ASSEMBLY ADJUSTMENTS

1) SCREEN ADJUSTMENT (S2)

- Enter the service mode and select service adjustment S2.
- You can see the one horizontal line on the screen.
- Adjust the Screen Control Volume (located on FBT) so that the horizontal line onscreen disappears.
- Press the volume up or down button to exit in the screen adjustment mode.

NOTE

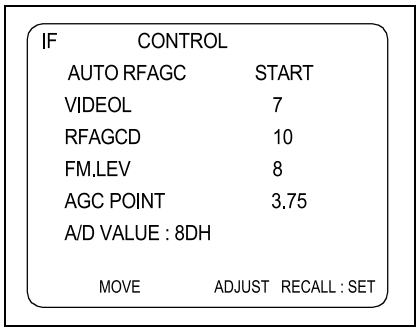
IN THE SCREEN ADJUSTMENT MODE, DON'T PRESS OTHER BUTTONS EXCEPT VOLUME UP OR DOWN BUTTON.

2) FOCUS ADJUSTMENT

- Turn in a local station and adjust the Focus Control knob (located on FBT) for best picture details at high light condition.

3) RF AGC DELAY ADJUSTMENT (S5)

- Receive a good local channel.
- Enter the service mode and select service adjustment S5.
- You can see the OSD as shown below.

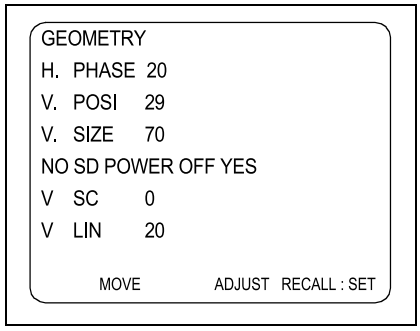


- Select RFAGCD item, press the volume up or down button until noise or beat in picture disappears.
- Press the DISPLAY button to memorize the data.

4) GEOMETRIC ADJUSTMENTS (S6)

- Enter the service mode and select service adjustment S7.
- Whenever you select the “S7” using the volume up or down button, the screen is changing like this.

- Using the volume up or down button, select internal cross pattern.
- Select service adjustment S6
- You can see the OSD as shown below.



4-1. Horizontal Position Adjustment

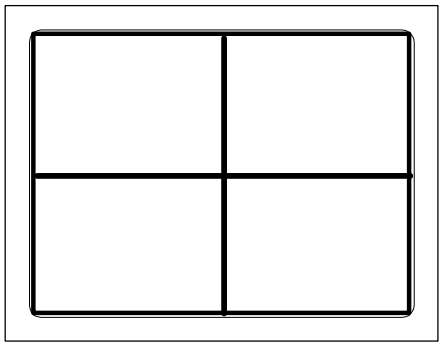
- Select H.PHASE item, adjust H.PHASE data value to obtain proper horizontal centering of the internal cross pattern at the left and right of the screen.

4-2. Vertical Position Adjustment

- Select V.POSI item, adjust V.POSI data value to center the raster properly on the screen.

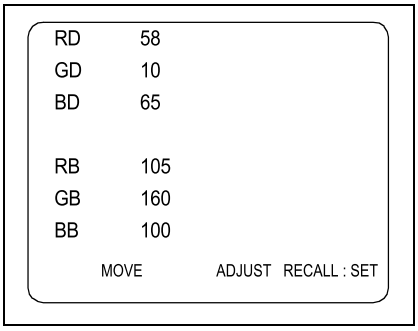
4-3. Vertical Size Adjustment

- Select “V.SIZE” item, adjust “V.SIZE” data value to proper vertical size as follows.



5) WHITE BALANCE ADJUSTMENT(S8)

- Receive a good local channel.
- Enter the service mode and select service adjustment S8.
- You can see the OSD as shown below.

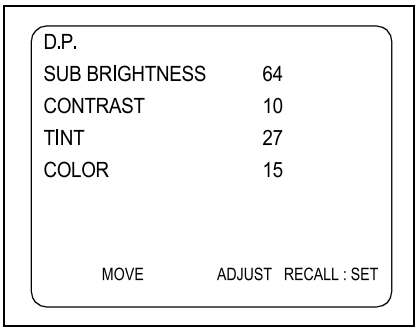


- Using volume up or volume down, adjust service adjustment data of RD/GD/BD and RB/GB/BB until a good gray scale with normal whites is obtained.
- Press the DISPLAY button to memorize the data.

6) DIGITAL PRESET(D.P) ADJUSTMENTS(S9)

SUBBRIGHTNESS ADJUSTMENT

- Receive a good local channel.
- Enter the service mode and select service adjustment S9.
- You can see the OSD as shown below.



- Select Subbrightness item, adjust Subbrightness data value to obtain normal brightness level.
- Press the DISPLAY button to memorize the data.

CONTRAST

- Fixed value = 27

TINT

- Fixed value = 32

COLOR

- Fixed value = 20

7) FACTORY OUTGOING MODE (S12 : FACT)

- If you select the S12, then the set becomes factory outgoing status.
- You can see the OSD “outgoing OK”

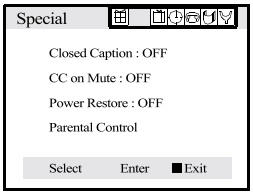
3. PARENTAL CONTROL PASSWORD SETTINGS

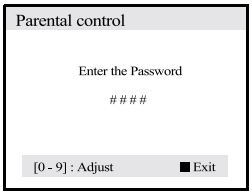
If the user forgets the password, set the Parental Control Password as follows.

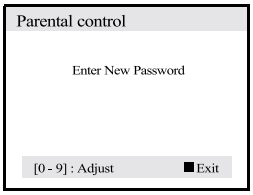
1) CHANGE THE PASSWORD.

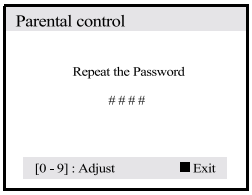
- Turn the set on.
- Direct the remote control to the Remote Sensor of the TV.
- Using the MENU buttons, select the Special menu.
- Using the the channel up (▲) or down (▼) buttons, select parental control.
- Using the volume up (►), set the password Menu.
- Push buttons of remote control in sequence as follows.

  2 → 2 → 1 → 1
- Parental control password is reset.
- Using the 0~9 buttons, enter the password.
- Using the 0~9 buttons, repeat the password.





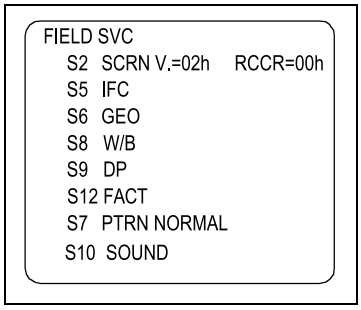




2) RESET THE PASSWORD

- Turn the set on.
- Direct the remote control to the Remote Sensor of the TV.
- Push buttons of remote control in sequence as follows.

  1 › MUTE › INFO › MUTE
- Then, the screen will appear as follows.



- Using the channel up (▲) or down (▼) buttons, select S12 FACT.

  Press the volume up (►) button, the set becomes factory outgoing status.
- Parental control password is reset.
- Using the MENU buttons, select the parental control menu, set the new password.

VOLTAGE CHART

LOC	PIN	MODE	
		ON	OFF
I101	1	2.37	0
	2	2.3	0
	3	2.63	0
	4	2.22	0.49
	5	2.88	0
	6	2.88	0
	7	0	0
	8	4.92	0.57
	9	2.25	0
	10	2.29	0.28
	11	4.9	4.89
	12	4.85	4.84
	13	3.94	0
	14	1.5	0
	15	1.53	0
	16	1.53	0
	17	0	0
	18	8.04	0
	19	2.52	0
	20	2.63	0
	21	2.59	0
	22	0.2	0
	23	0.22	0
	24	2.56	0
	25	5.14	4.23
	26	2.65	2.2
	27	0.69	0.16
	28	0.81	1.37
	29	1.71	1.4
	30	0	0
	31	NC	NC
	32	2.79	0.31
	33	0	0
	34	0	0
	35	0.36	0
	36	3.41	0
	37	0.55	0
	38	2.81	0.35
	39	3.27	0
	40	0	0
	41	0	0
	42	2.52	0
	43	4.95	0.5

LOC	PIN	MODE	
		ON	OFF
	44	2.73	0
	45	1.94	0
	46	2.36	0
	47	2.44	0
	48	4.25	0.51
	49	4.25	0.51
	50	3.56	0
	51	3.04	0.65
	52	1.98	0.32
	53	2.39	0
	54	3.11	0.3

LOC	PIN	MODE	
		ON	OFF
I301	1	2.8	0
	2	27.5	0
	3	3.1	0
	4	0	0
	5	17	0
	6	28.4	8.76
	7	2.8	0

LOC	PIN	MODE	
		ON	OFF
I401	1	7.62	0
	2	0	0
	3	5.05	0.6

LOC	PIN	MODE	
		ON	OFF
I601	1	14.55	10.92
	2	7.56	5.52
	3	7.81	5.87
	4	0.87	0.82
	5	0	0
	6	0	0
	7	0	0
	8	0	0
	9	0	0
	10	0	0
	11	0	0
	12	0	0
	13	0	0
	14	0	0
	15	0	0
	16	0	0

LOC	PIN	MODE	
		ON	OFF
I701	1	4.9	4.89
	2	4.81	4.8
	3	5.04	4.99
	4	5.04	4.99
	5	0	0
	6	1.9	1.9
	7	2.68	2.66
	8	4.97	4.92
	9	5.04	4.99
	10	0	0
	11	2.22	0.49
	12	0	4.89
	13	4.95	4.89
	14	3.4	3.37
	15	2.69	2.47
	16	0	3.52
	17	4.65	4.99
	18	4.14	4.99
	19	0	0
	20	0	0
	21	0	0
	22	0	0
	23	NC	NC
	24	NC	NC
	25	0	0

LOC	PIN	MODE	
		ON	OFF
I701	26	0	0
	27	3.81	3.46
	28	4.97	4.92
	29	4.77	4.71
	30	5.04	4.99
	31	4.08	0
	32	5.04	4.99
	33	0	0
	34	5.04	4.99
	35	0	0
	36	0	0

LOC	PIN	MODE	
		ON	OF
I703	1	0	0
	2	0	0
	3	0	0
	4	0	0
	5	4.89	4.86
	6	4.86	4.83
	7	0	0
	8	5.04	4.99

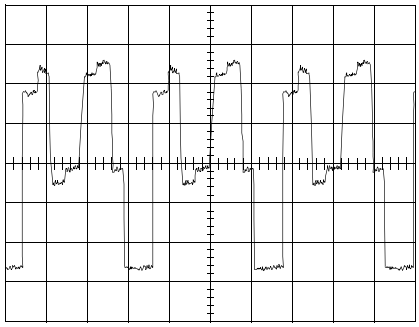
LOC	PIN	MODE	
		ON	OF
I801	1	172	174
	2	0.07	0
	3	18.39	16.01
	4	0.16	0.09
	5	1.2	1.68
	6	1.44	0.77

VOLTAGE CHART

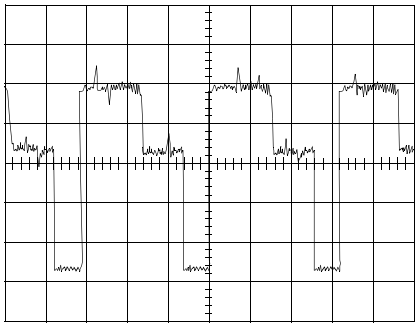
LOC	PIN	MODE		LOC	PIN	MODE	
		ON	OFF			ON	OFF
Q201	C	5.10	5.03	Q702	C	4.67	5.02
	E	3.36	3.32		E	0	0
	B	2.52	2.48		B	1.25	0.13
Q401	C	38.67	37.58	Q703	C	5.09	5.01
	E	0	0		E	0.63	0
	B	0.31	0.01		B	1.25	0
Q403	C	0.54	0.01	Q704	C	5.00	4.95
	E	0	0		E	5.03	4.98
	B	0.01	0.68		B	4.40	4.34
Q404	C	9.50	0.02	Q707	C	5.10	5.03
	E	0	0		E	0.45	4.25
	B	0.01	0		B	0.06	4.94
Q501	C	3.58	0.02	Q708	C	2.36	1.25
	E	3.65	0.01		E	0	0
	B	3.55	0.11		B	0.26	0
Q570	C	0	0	Q804	C	0	0
	E	1.33	0.03		E	133.2	111.95
	B	0.63	0		B	132.6	111.61
Q575	C	0.6 1.0	0.31	Q805	C	12.58	8.20
	E	9.24	0.33		E	5.08	5.03
	B	9.50	0		B	5.67	5.64
Q701	C	4.17	5.03	Q851	C	10.6	7.64
	E	0	0		E	0	0
	B	0.26	0		B	0	0

WAVEFORMS

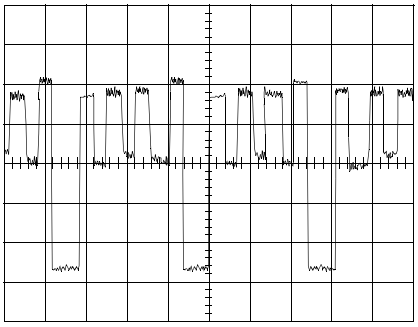
(1) I101 PIN 19



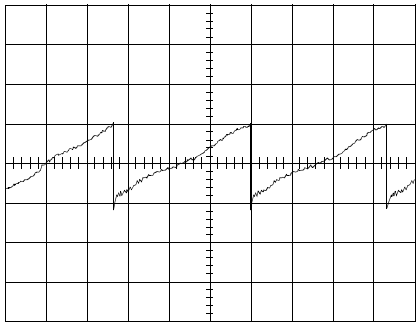
(2) I101 PIN 20



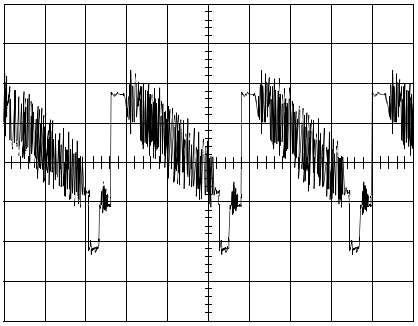
(3) I101 PIN 21



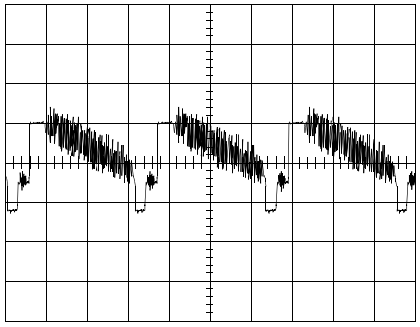
(4) I101 PIN 23



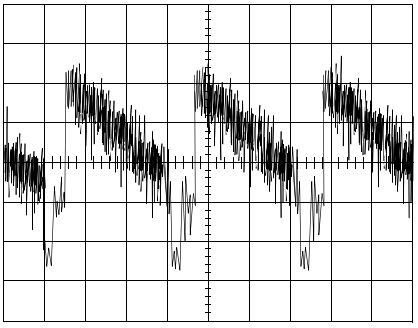
(5) I101 PIN 40



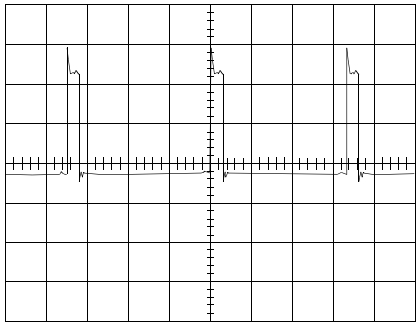
(5) I101 PIN 44



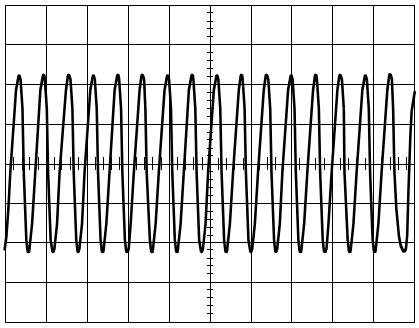
(7) I101 PIN 46



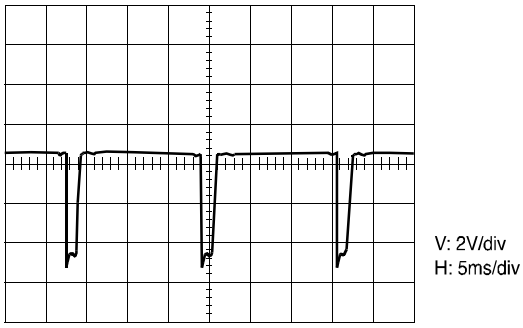
(8) I301 PIN7



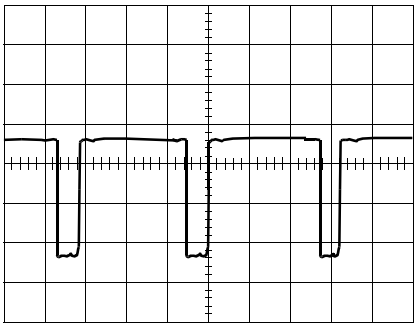
(9) I701 PIN 7



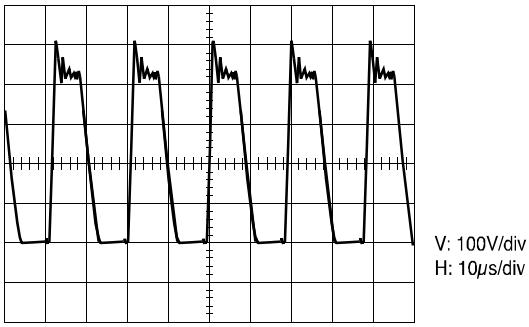
(10) I701 PIN 17



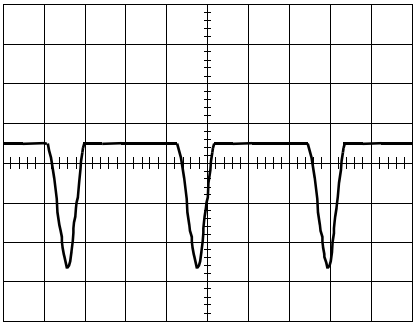
1) I701 PIN 18



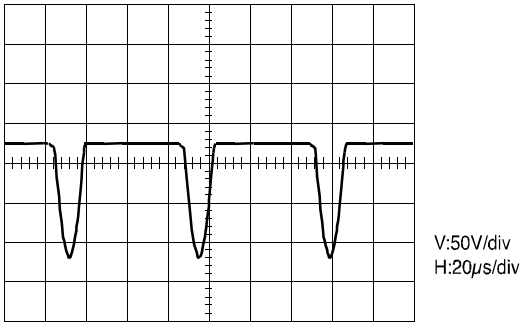
(12) I801 PIN1



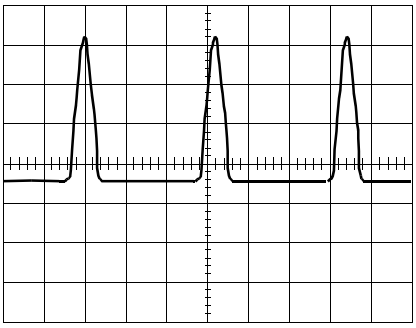
(13) T402 PIN 25.5V



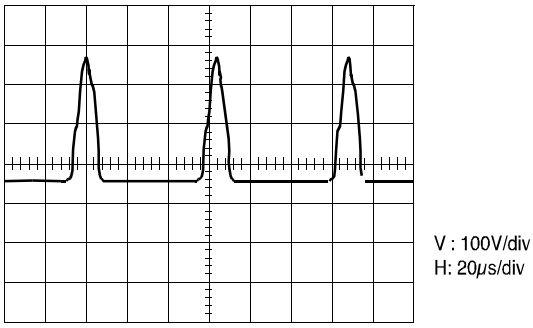
(14) T402 PIN 10.5V



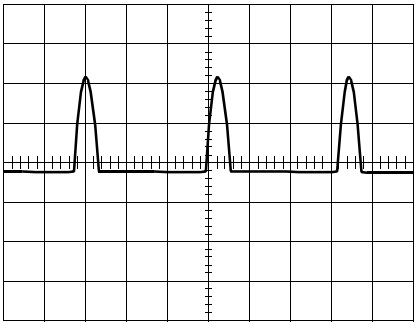
(15) T402 PIN HEATER



(16) T402 PIN 200V

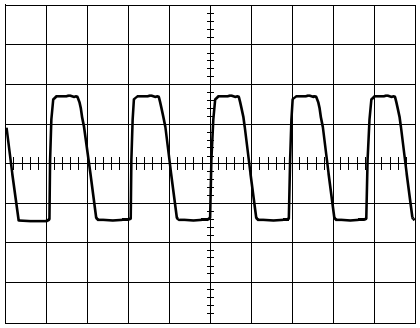


(17) T401 PIN H.V



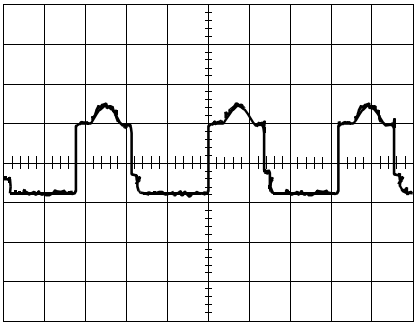
V: 500V/div
H: 20μs/div

(18) T801 PIN 133V



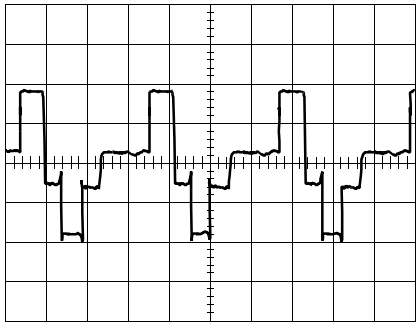
V: 100V/div
H: 10μs/div

(19) Q403 COLLECTOR



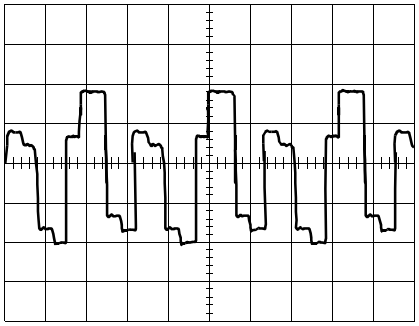
V: 500V/div
H: 20μs/div

(20) CRT SOCKET PIN B



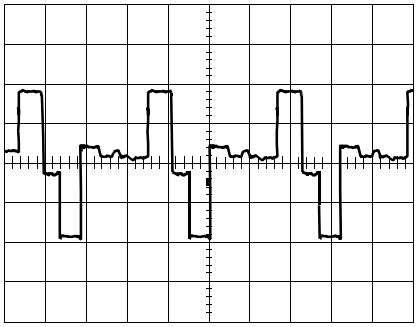
V:50V/div
H:20μs/div

(21) CRT SOCKET PIN R



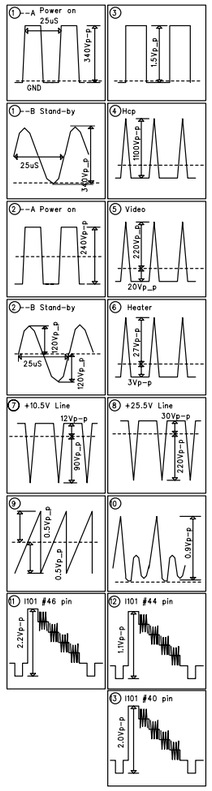
V:50V/div
H:20μs/div

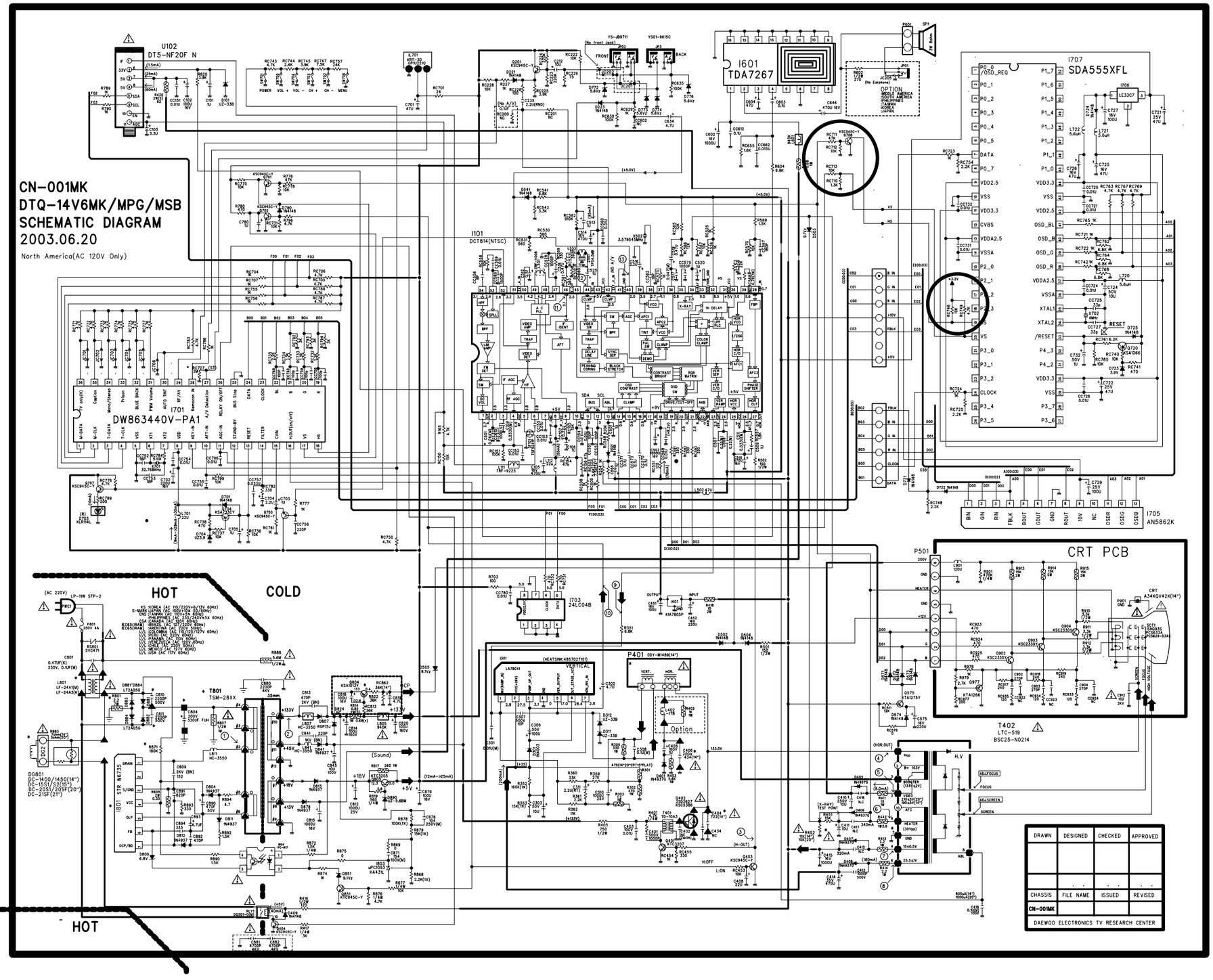
(22) CRT SOCKET PIN G



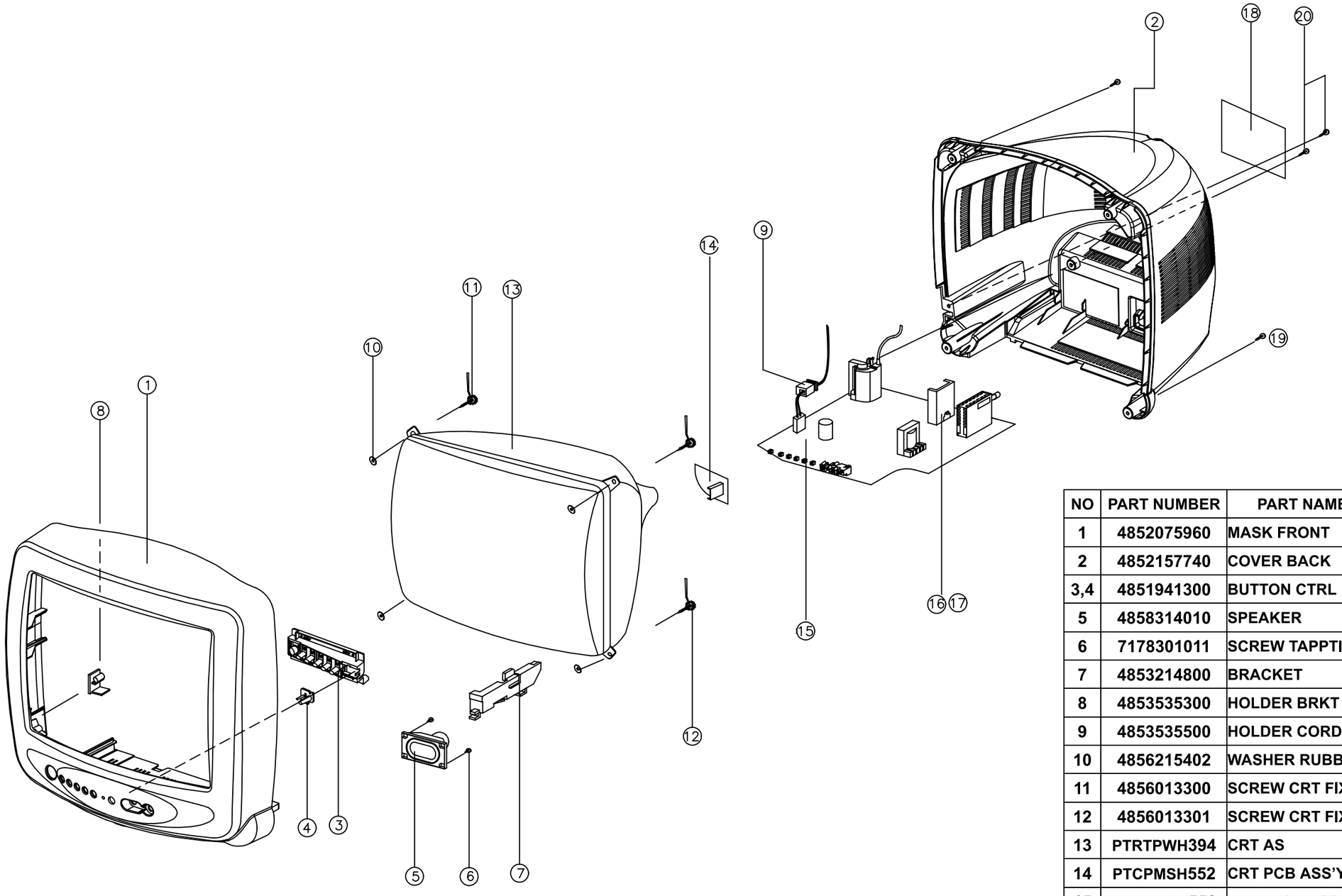
V:50V/div
H:20μs/div

SCHEMATIC DIAGRAM




CN-001MK
DTQ-14V6MK/MPG/MSB
SCHEMATIC DIAGRAM
2003.06.20
North America(AC 120V Only)
U102
DT5-NF20F N
I601
TDA7267
I707
SDA555XFL
I706
I705
AN5862K
I101
DCT814(NTSC)
I701
DW863440V-PA1
I501
STR W6735
I703
24LC04B
P401
CRT PCB
T401
T402
LTC-519
BSC25-N0214
T501
TSM-28XX
HOT
COLD
1. CAUTION
SYMBOL MARKED PARTS IN THE SCHEMATIC DIAGRAM DESIGNATE THE COMPONENTS WHICH HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY AND SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN ORIGINAL CIRCUIT OR SPECIFIED IN THE PARTS LIST. DO NOT DEGRADE THE SAFETY OF THE RECEIVER THROUGH IMPROPER SERVICING.
WARING :
BEFORE SERVICING THIS CHASSIS,READ THE "X-RAY RADIATION PRECAUTION " "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" IN THE SERVICE MANUAL.
CAUTION TO THE SERVICE TECHNICIANS :
BEFORE RETURNING THE RECEIVER TO THE CUSTOMER APROPRIATE LEAKAGE CURRENT OR RESISTANCE MEASUREMENT SHOULD BE CONDUCTED TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.
NOTE :
1. RESISTANCE IS SHOWN IN OHMS. K=1,000 M=1,000,000
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN uF AND THE VALUES MORE THAN 1 IN pF.
3. VOLTAGES READ WITH "V.T.V.M" FROM POINT INDICATE TO CHASSIS GROUND USING A COLOR BAR SIGNAL WITH ALL CONTROLS AT NORMAL LINE VOLTAGE 120 VOLTS AC. VOLTAGE READINGS SHOWN ARE NORMAL VALUES AND MAY VARY +20% EXCEPT H.V.
4. IN CASE OF 19" RECEIVER THE COMPONENT WITH THE MARK * SHOULD BE USED ONLY.
5. THE CIRCUIT DIAGRAM IS A STANDARD ONE. CIRCUITS PRINTED MAY BE SUBJECT TO CHANGE FOR PRODUCT IMPROVEMENT WITHOUT PRIOR NOTICE.
DRAWN
DESIGNED
CHECKED
APPROVED
CHASSIS
FILE NAME
ISSUED
REVISED
CN-001MK
DAEWOO ELECTRONICS TV RESEARCH CENTER

EXPLODED VIEW



NO	PART NUMBER	PART NAME	Q'ty	MATERIAL
1	4852075960	MASK FRONT	1	FR HIPS PK
2	4852157740	COVER BACK	1	FR HIPS PK
3,4	4851941300	BUTTON CTRL	1	4947700+5542501
5	4858314010	SPEAKER	1	SP-5070F01 3W 8ohm
6	7178301011	SCREW TAPPTITE	4	TT2 WAS 3X10 MFZN
7	4853214800	BRACKET	1	FR HIPS BK
8	4853535300	HOLDER BRKT	1	FR HIPS BK
9	4853535500	HOLDER CORD	1	NYROLN 66
10	4856215402	WASHER RUBBER	4	CR T2.0
11	4856013300	SCREW CRT FIX	2	30X80 BK
12	4856013301	SCREW CRT FIX	2	30X140 YL
13	PTRTPWH394	CRT AS	1	NTSC 14" ITC CRT AS
14	PTCPMSH552	CRT PCB ASS'Y	1	HKTV13(DTQ-14V6NK)
15	PTMPMSH552	MAIN PCB ASS'Y	1	HKTV13(DTQ-14V6NK)
16	4857027101	HEAT SINK	1	SPCC T1.0+SN
17	7174300811	SCREW TAPPTITE	1	TT2 RND 3X8 MFZN
18	4855415800	SPEC PLATE	1	150ART P/E FILM (C/TV)
19	7172401612	SCREW TAPPING	4	TT2 TRS 4X16 MFZN BK
20	7172401612	SCREW TAPPING	2	TT2 TRS 4X16 MFZN BK

ELECTRICAL PARTS LIST

Caution :

In this Manual, some parts can be changed for improving, their performance without notice in the aprts list. So, if you need the latest parts information, please refer to PPL(Prats Price List) in Service information Center (http://svc.dwe.co.kr)

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
DTQ-14V6MPG	ZZ100	48B4343A09	TRANSMITTER REMOCON	R-43A09 (AA)
DTQ-14V6MPG	ZZ110	PTACPWH552	ACCESSORY AS	DTQ-14V6NK
PTACPWH552	00010	4850A02510	ANT ROD	S3BW216B (L=600 MM)
PTACPWH552	00040	4850A00650	TRANS ANT MATCHING	YSC-T-07 BR
PTACPWH552	10000	48586001E2	MANUAL INSTRUCTION	DTQ-20V1FS
PTACPWH552	M821	4858213802	BAG INSTRUCTION	L.D.P.E T0.05X250X400
DTQ-14V6MPG	ZZ120	PTBCSHH552	COVER BACK AS	DTQ-14V6NK
PTBCSHH552	M211	4852157740	COVER BACK	FR HIPS PK
PTBCSHH552	M781	4857817611	CLOTH BLACK	FELT 200X20X0.7
DTQ-14V6MPG	ZZ130	PTPKCPH552	PACKING AS	DTQ-14V6NK
PTPKCPH552	10	6520010100	STAPLE PIN	AUTO W65
PTPKCPH552	M801	485803871D	BOX CARTON	SW-2
PTPKCPH552	M802	485806280D	BOX CARTON	SW-2(B)
PTPKCPH552	M811	4858195400	PAD	EPS
PTPKCPH552	M821	4858215702	BAG P.E	PE FOAM t0.5x1000x950
DTQ-14V6MPG	ZZ131	58G0000078	COIL DEGAUSSING	DC-1400
DTQ-14V6MPG	ZZ132	48519A4710	CRT GROUND NET	1401S-1015-1P
DTQ-14V6MPG	ZZ140	PTCACAH628	CABINET AS	DTQ-14V6MPG
PTCACAH628	CRT1	PTRTPWH394	CRT AS	“NTSC 14”” ITC CRT AS”
PTRTPWH394	V01	58D0000082	COIL DY	ODY-M1489
PTRTPWH394	V04	2224050029	BOND SILICON	LDC7091 CARTRIDGE
PTRTPWH394	V05	4850PM001-	PCM	NY-225 (MINI NECK)
PTRTPWH394	V06	48A96R004-	RUBBER WEDGE	HMR 28 SR (/0X54)
PTRTPWH394	V901	48A96314C2	CRT BARE	A34AGT13X
PTCACAH628	M201A	4856013350	SCREW CRT FIXING	25X80 BK
PTCACAH628	M201B	4856215402	WASHER RUBBER	CR T2.0
PTCACAH628	M201C	4856013351	SCREW CRT FIXING	25X140 YL
PTCACAH628	M211A	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK
PTCACAH628	M211B	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK
PTCACAH628	M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)
PTCACAH628	M681	4856812001	TIE CABLE	NYLON66 DA100
PTCACAH628	SP01A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN
PTCACAH628	ZZ200	PTFMSJH622	MASK FRONT AS	DTQ-14V6NPG
PTFMSJH622	M191	4851941303	BUTTON CTRL	4947704+5542501 14V6
PTFMSJH622	M201	4852075960	MASK FRONT	FR HIPS PK 14V6
PTFMSJH622	M321	4853214800	BRKT	FR HIPS BK
PTFMSJH622	M351	4853535300	HOLDER BRKT	FR HIPS BK
PTCACAH628	ZZ202	PTSPPWH407	SPEAKER AS	DTQ-14J4FC
PTSPPWH407	PA601	4850703S50	CONNECTOR	YH025-03+35098+ULW=200
PTSPPWH407	SP01	4858314010	SPEAKER	SP-5070F01 3W 8 OHM
PTCACAH628	ZZ290	PTMPMSH628	PCB MAIN MANUAL AS	DTQ-14V6MPG

ELECTRICAL PARTS LIST

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPMSH628	10	2193102005	SOLDER BAR	SN:PB=63:47 S63S-1320
PTMPMSH628	100	2291130215	GREASE SILICON	G-600
PTMPMSH628	20	2193011101	SOLDER WIRE	RS 60-1.2 1.6A
PTMPMSH628	30	2291050616	FLUX SOLDER	JS-64T3
PTMPMSH628	40	2291050301	FLUX SOLVENT	IM-1000
PTMPMSH628	80	2TP07545CL	TAPE OPP	45X50 CLEAR
PTMPMSH628	C404	CMYH3C722H	C MYLAR	1.6KV BUP 7200PF H
PTMPMSH628	C801	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47
PTMPMSH628	C804	CEYN2D331P	C ELECTRO	200V LHS 330MF
PTMPMSH628	C809	CBYB3D152K	C CERA SEMI	2KV BL(N) 1500PF K
PTMPMSH628	D703	DLH2PR——	LED BLOCK	LH-2P-R
PTMPMSH628	I101	1DCT814B—	IC CHROMA	DCT814B
PTMPMSH628	I301	PTD2SW7100	HEAT SINK ASS`Y	1LA78041— + 7174300811
PTD2SW7100	00001	1LA78041—	IC VERTICAL	LA78041
PTD2SW7100	0000A	4857027100	HEAT SINK	SPCC T1.0+SN
PTD2SW7100	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN
PTMPMSH628	I401	1K1A7805P1	IC REGULATOR	KIA7805API
PTMPMSH628	I601	1TDA7267—	IC AUDIO AMP	TDA7267
PTMPMSH628	I701	1DW8634PA1	IC MICOM	DW863440V-PA1(5Y56)
PTMPMSH628	I703	124LC04B—	IC MEMORY	24LC04B
PTMPMSH628	I705	1AN5862K—	IC	AN5862K
PTMPMSH628	I707	1SDA555XFL	IC MICOM OTP	SDA555XFL
PTMPMSH628	I801	1STRW6735-	IC POWER	STR-W6735
PTMPMSH628	IL701	1SRV21M—-	IC PREAMP	SRV-21M
PTMPMSH628	JP02	4859109950	JACK PIN BOARD	PH-JB-9710A
PTMPMSH628	JP03	4859109150	JACK PIN BOARD	PH-JB-9615C
PTMPMSH628	L501	58N0000042	COIL VCO	TRF-V008
PTMPMSH628	L801	5PLF24A1—	FILTER LINE	LF-24A1
PTMPMSH628	M352	4853535500	HOLDER AC CORD	NYLON 66
PTMPMSH628	M681	4856812001	TIE CABLE	NYLON66 DA100
PTMPMSH628	P401	4859240020	CONN WAFER	YFW500-05
PTMPMSH628	P501	4850705N17	CONNECTOR	YBNH250-05+YBNT250+ULW300
PTMPMSH628	P502A	4850703S19	CONNECTOR	YH025-03+YBNH250+ULW=300
PTMPMSH628	PWC1	4859908010	CORD POWER AS	ME301P+WH+TER=2100
PTMPMSH628	Q402	PTA2SW7201	HEAT SINK ASS`Y	T2SD2627YB + 7174300811
PTA2SW7201	00001	T2SD2627YB	TR HORI	2SD2627LS-YB
PTA2SW7201	0000A	4857027201	HEAT SINK	AL T1.0
PTA2SW7201	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN
PTMPMSH628	R801	RX07B229JP	R CEMENT	7W 2.2 OHM J BEN 15MM 4P
PTMPMSH628	RLY1	5SC0101338	SW RELAY	GJ-SS-105LM
PTMPMSH628	RS801	DSVC471D14	VARISTOR	SVC471D14A
PTMPMSH628	SCT1	4859303930	SOCKET CRT	ISMG03S INCHANG
PTMPMSH628	SF101	5PTSF5241P	FILTER SAW	TSF5241P
PTMPMSH628	T401	50D10A3—-	TRANS DRIVE	TD-10A3
PTMPMSH628	T402	50H0000244	FBT	BSC25-N0214
PTMPMSH628	T801	50M2834A1-	TRANS SMPS	TSM-2834A1

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPMSH628	U102	4859721730	TUNER VARACTOR	DT5-NF20F N
PTMPMSH628	X701	5XYR03276C	CRYSTAL QUARTZ	C-001R 32.768000KHZ 20PPM
PTMPMSH628	ZZ200	PTMPJ2H628	PCB CHIP MOUNT B AS	DTQ-14V6MPG
PTMPJ2H628	CC151	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC152	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC153	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC154	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC155	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC528	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608
PTMPJ2H628	CC551	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608
PTMPJ2H628	CC552	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608
PTMPJ2H628	CC556	HCQK809DBA	C CHIP CERA	50V CH 8PF D 1608
PTMPJ2H628	CC560	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC562	HCQK180JBA	C CHIP CERA	50V CH 18PF J 1608
PTMPJ2H628	CC567	HCQK181JBA	C CHIP CERA	50V CH 180PF J 1608
PTMPJ2H628	CC568	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC569	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC570	HCFK104ZBA	C CHIP CERA	50V Y5V 0.1MF Z 1608
PTMPJ2H628	CC571	HCFK104ZBA	C CHIP CERA	50V Y5V 0.1MF Z 1608
PTMPJ2H628	CC573	HCFK104ZBA	C CHIP CERA	50V Y5V 0.1MF Z 1608
PTMPJ2H628	CC575	HCBK102KBA	C CHIP CERA	50V X7R 1000PF K 1608
PTMPJ2H628	CC580	HCBK152KBA	C CHIP CERA	50V X7R 1500PF K 1608
PTMPJ2H628	CC612	HCFK104ZBA	C CHIP CERA	50V Y5V 0.1MF Z 1608
PTMPJ2H628	CC662	HCBK153KBA	C CHIP CERA	50V X7R 0.015MF K 1608
PTMPJ2H628	CC720	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC721	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC724	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC725	HCQK330JBA	C CHIP CERA	50V CH 33PF J 1608
PTMPJ2H628	CC726	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC727	HCQK330JBA	C CHIP CERA	50V CH 33PF J 1608
PTMPJ2H628	CC731	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC732	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC735	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608
PTMPJ2H628	CC752	HCQK180JBA	C CHIP CERA	50V CH 18PF J 1608
PTMPJ2H628	CC753	HCQK180JBA	C CHIP CERA	50V CH 18PF J 1608
PTMPJ2H628	CC754	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC755	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC756	HCQK221JBA	C CHIP CERA	50V CH 220PF J 1608
PTMPJ2H628	CC757	HCBK333KBA	C CHIP CERA	50V X7R 0.033MF K 1608
PTMPJ2H628	CC758	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608
PTMPJ2H628	CC759	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608
PTMPJ2H628	CC760	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608
PTMPJ2H628	CC768	HCQK101JBA	C CHIP CERA	50V CH 100PF J 1608
PTMPJ2H628	CC780	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	CC796	HCBK103KBA	C CHIP CERA	50V X7R 0.01MF K 1608
PTMPJ2H628	I805	1LTV817C-Q	IC PHOTO COUPLER	LTV-817C TRAY

ELECTRICAL PARTS LIST

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJ2H628	JC001	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC002	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC124	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC125	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC126	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC127	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC198	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC199	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC203	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC550	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC551	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC553	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC557	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC558	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC701	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC702	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC703	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC704	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC710	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC750	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC751	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC752	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC753	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC754	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC755	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC756	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC757	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC758	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC760	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC761	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC764	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC765	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC784	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC785	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	JC786	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	RC105	HRFT153JBA	R CHIP	1/10 15K OHM J 1608
PTMPJ2H628	RC150	HRFT153JBA	R CHIP	1/10 15K OHM J 1608
PTMPJ2H628	RC151	HRFT104JBA	R CHIP	1/10 100K OHM J 1608
PTMPJ2H628	RC154	HRFT473JBA	R CHIP	1/10 47K OHM J 1608
PTMPJ2H628	RC156	HRFT473JBA	R CHIP	1/10 47K OHM J 1608
PTMPJ2H628	RC223	HRFT224JBA	R CHIP	1/10 220K OHM J 1608
PTMPJ2H628	RC224	HRFT224JBA	R CHIP	1/10 220K OHM J 1608
PTMPJ2H628	RC225	HRFT392JBA	R CHIP	1/10 3.9K OHM J 1608
PTMPJ2H628	RC226	HRFT101JBA	R CHIP	1/10 100 OHM J 1608
PTMPJ2H628	RC228	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC229	HRFT750JBA	R CHIP	1/10 75 OHM J 1608

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJ2H628	RC453	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC454	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC455	HRFT331JBA	R CHIP	1/10 330 OHM J 1608
PTMPJ2H628	RC503	HRFT752JBA	R CHIP	1/10 7.5K OHM J 1608
PTMPJ2H628	RC508	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC509	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC510	HRFT561JBA	R CHIP	1/10 560 OHM J 1608
PTMPJ2H628	RC511	HRFT123JBA	R CHIP	1/10 12K OHM J 1608
PTMPJ2H628	RC525	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC526	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC530	HRFT561JBA	R CHIP	1/10 560 OHM J 1608
PTMPJ2H628	RC531	HRFT561JBA	R CHIP	1/10 560 OHM J 1608
PTMPJ2H628	RC533	HRFT390JBA	R CHIP	1/10 39 OHM J 1608
PTMPJ2H628	RC541	HRFT682JBA	R CHIP	1/10 6.8K OHM J 1608
PTMPJ2H628	RC542	HRFT332JBA	R CHIP	1/10 3.3K OHM J 1608
PTMPJ2H628	RC548	HRFT824JBA	R CHIP	1/10 820K OHM J 1608
PTMPJ2H628	RC551	HRFT121JBA	R CHIP	1/10 120 OHM J 1608
PTMPJ2H628	RC556	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	RC557	HRFT182JBA	R CHIP	1/10 1.8K OHM J 1608
PTMPJ2H628	RC558	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC559	HRFT331JBA	R CHIP	1/10 330 OHM J 1608
PTMPJ2H628	RC561	HRFT561JBA	R CHIP	1/10 560 OHM J 1608
PTMPJ2H628	RC562	HRFT914JBA	R CHIP	1/10 910K OHM J 1608
PTMPJ2H628	RC565	HRFT123JBA	R CHIP	1/10 12K OHM J 1608
PTMPJ2H628	RC566	HRFT123JBA	R CHIP	1/10 12K OHM J 1608
PTMPJ2H628	RC567	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC568	HRFT472FBA	R CHIP	1/10 4.7K OHM F 1608
PTMPJ2H628	RC570	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC572	HRFT223JBA	R CHIP	1/10 22K OHM J 1608
PTMPJ2H628	RC573	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC576	HRFT000-BA	R CHIP	1/10 0 OHM 1608
PTMPJ2H628	RC591	HRFT331JBA	R CHIP	1/10 330 OHM J 1608
PTMPJ2H628	RC592	HRFT331JBA	R CHIP	1/10 330 OHM J 1608
PTMPJ2H628	RC593	HRFT331JBA	R CHIP	1/10 330 OHM J 1608
PTMPJ2H628	RC629	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC630	HRFT104JBA	R CHIP	1/10 100K OHM J 1608
PTMPJ2H628	RC655	HRFT162JBA	R CHIP	1/10 1.6K OHM J 1608
PTMPJ2H628	RC701	HRFT220JBA	R CHIP	1/10W 22 OHM J 1608
PTMPJ2H628	RC704	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC705	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC706	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC707	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC710	HRFT132JBA	R CHIP	1/10 1.3K OHM J 1608
PTMPJ2H628	RC711	HRFT473JBA	R CHIP	1/10 47K OHM J 1608
PTMPJ2H628	RC712	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC713	HRFT103JBA	R CHIP	1/10 10K OHM J 1608

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJ2H628	RC721	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC722	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC723	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC724	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC725	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608
PTMPJ2H628	RC731	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC732	HRFT132JBA	R CHIP	1/10 1.3K OHM J 1608
PTMPJ2H628	RC733	HRFT132JBA	R CHIP	1/10 1.3K OHM J 1608
PTMPJ2H628	RC734	HRFT132JBA	R CHIP	1/10 1.3K OHM J 1608
PTMPJ2H628	RC735	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608
PTMPJ2H628	RC736	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC737	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC738	HRFT471JBA	R CHIP	1/10 470 OHM J 1608
PTMPJ2H628	RC740	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC741	HRFT471JBA	R CHIP	1/10 470 OHM J 1608
PTMPJ2H628	RC742	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC743	HRFT472FBA	R CHIP	1/10 4.7K OHM F 1608
PTMPJ2H628	RC744	HRFT242JBA	R CHIP	1/10 2.4K OHM J 1608
PTMPJ2H628	RC745	HRFT392JBA	R CHIP	1/10 3.9K OHM J 1608
PTMPJ2H628	RC746	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC747	HRFT752JBA	R CHIP	1/10 7.5K OHM J 1608
PTMPJ2H628	RC748	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608
PTMPJ2H628	RC749	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC750	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC751	HRFT471JBA	R CHIP	1/10 470 OHM J 1608
PTMPJ2H628	RC752	HRFT471JBA	R CHIP	1/10 470 OHM J 1608
PTMPJ2H628	RC754	HRFT222JBA	R CHIP	1/10 2.2K OHM J 1608
PTMPJ2H628	RC755	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC756	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC757	HRFT243JBA	R CHIP	1/10 24K OHM J 1608
PTMPJ2H628	RC761	HRFT622JBA	R CHIP	1/10 6.2K OHM J 1608
PTMPJ2H628	RC762	HRFT682JBA	R CHIP	1/10 6.8K OHM J 1608
PTMPJ2H628	RC763	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC764	HRFT682JBA	R CHIP	1/10 6.8K OHM J 1608
PTMPJ2H628	RC765	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC767	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC768	HRFT682JBA	R CHIP	1/10 6.8K OHM J 1608
PTMPJ2H628	RC769	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC770	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC775	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC776	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC778	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC781	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC782	HRFT331JBA	R CHIP	1/10 330 OHM J 1608
PTMPJ2H628	RC783	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC784	HRFT514JBA	R CHIP	1/10 510K OHM J 1608

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJ2H628	RC785	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC786	HRFT102JBA	R CHIP	1/10 1K OHM J 1608
PTMPJ2H628	RC787	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC788	HRFT472JBA	R CHIP	1/10 4.7K OHM J 1608
PTMPJ2H628	RC789	HRFT201JBA	R CHIP	1/10 200 OHM J 1608
PTMPJ2H628	RC792	HRFT302JBA	R CHIP	1/10W 3.0K J 1608
PTMPJ2H628	RC793	HRFT302JBA	R CHIP	1/10W 3.0K J 1608
PTMPJ2H628	RC794	HRFT302JBA	R CHIP	1/10W 3.0K J 1608
PTMPJ2H628	RC799	HRFT103JBA	R CHIP	1/10 10K OHM J 1608
PTMPJ2H628	RC917	HRFT241JBA	R CHIP	1/10 240 OHM J 1608
PTMPJ2H628	RC918	HRFT241JBA	R CHIP	1/10 240 OHM J 1608
PTMPJ2H628	RC919	HRFT241JBA	R CHIP	1/10 240 OHM J 1608
PTMPJ2H628	RC923	HRFT471JBA	R CHIP	1/10 470 OHM J 1608
PTMPJ2H628	RC924	HRFT471JBA	R CHIP	1/10 470 OHM J 1608
PTMPJ2H628	RC925	HRFT471JBA	R CHIP	1/10 470 OHM J 1608
PTMPJ2H628	RC933	HRFT121JBA	R CHIP	1/10 120 OHM J 1608
PTMPJ2H628	RC934	HRFT121JBA	R CHIP	1/10 120 OHM J 1608
PTMPJ2H628	RC935	HRFT121JBA	R CHIP	1/10 120 OHM J 1608
PTMPJ2H628	RC977	HRFT201JBA	R CHIP	1/10 200 OHM J 1608
PTMPJ2H628	ZZ200	PTMPJ0H628	PCB MAIN (RHU) AS	DTQ-14V6MPG
PTMPJ0H628	C105	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP
PTMPJ0H628	C310	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
PTMPJ0H628	C406	CMXF2E434J	C MYLAR	250V MPP 0.43MF J (TP)
PTMPJ0H628	C410	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP
PTMPJ0H628	C414	CEXF1V471V	C ELECTRO	35V RSS 470MF (10X20) TP
PTMPJ0H628	C415	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP
PTMPJ0H628	C502	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP
PTMPJ0H628	C510	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP
PTMPJ0H628	C514	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP
PTMPJ0H628	C602	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP
PTMPJ0H628	C646	CEXF1C471V	C ELECTRO	16V RSS 470MF (8X12)TP
PTMPJ0H628	C812	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP
PTMPJ0H628	C813	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)
PTMPJ0H628	C814	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP
PTMPJ0H628	C815	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP
PTMPJ0H628	C820	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP
PTMPJ0H628	C841	CCXB3A221K	C CERA	1KV B 220PF K (TAPPING)
PTMPJ0H628	C881	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP
PTMPJ0H628	C882	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP
PTMPJ0H628	C912	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP
PTMPJ0H628	F801	5FWML4022L	FUSE	WIDE TL 250V 4A CASE
PTMPJ0H628	R881	DDT7R0M140	POSISTOR	ECPAC7R0M140
PTMPJ0H628	X702	5XEX6R000C	CRYSTAL QUARTZ	HC-49/U 6.000M 20PPM TP
PTMPJ0H628	ZZ200	PTMPJBH628	PCB MAIN M-10 AS	DTQ-14V6MPG
PTMPJBH628	10	2TM18006BE	TAPE MASKING	6.2X500
PTMPJBH628	D807	DRGP15J—-	DIODE	RGP15J

ELECTRICAL PARTS LIST

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJBH628	D882	DLT2A05G—	DIODE	LT2A05G (TP)
PTMPJBH628	D883	DLT2A05G—	DIODE	LT2A05G (TP)
PTMPJBH628	D884	DLT2A05G—	DIODE	LT2A05G (TP)
PTMPJBH628	E001	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E002	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E003	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E004	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E007	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E008	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E009	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E011	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E012	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E013	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E014	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E017	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E018	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E019	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E020	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E021	4856310300	EYE LET	BSR T0.2 (R1.6)
PTMPJBH628	E100	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E101	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E103	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E105	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E106	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E110	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E111	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E114	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E115	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E116	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	E117	4856310600	EYE LET	BSR T0.2 (R2.3)
PTMPJBH628	P502	485923162S	CONN WAFER	YW025-03 (STICK)
PTMPJBH628	P601	485923162S	CONN WAFER	YW025-03 (STICK)
PTMPJBH628	P801A	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
PTMPJBH628	P801B	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
PTMPJBH628	R442	RS01Z369J-	R M-OXIDE FILM	1W 3.6 OHM J (TAPPING)
PTMPJBH628	R601	RF01Z688K-	R FUSIBLE	1W 0.68 OHM K (TAPPING)
PTMPJBH628	R805	RS02Z338JS	R M-OXIDE FILM	2W 0.33 OHM J SMALL
PTMPJBH628	ZZ200	PTMPJRH628	PCB MAIN RADIAL AS	DTQ-14V6MPG
PTMPJRH628	C101	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C102	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
PTMPJRH628	C103	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11) TP
PTMPJRH628	C104	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)
PTMPJRH628	C106	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C107	CEXF1H228V	C ELECTRO	50V RSS 0.22MF (5X11) TP
PTMPJRH628	C212	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
PTMPJRH628	C235	CEXD1H229F	C ELECTRO	50V RND 2.2MF (5X11) TP

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJRH628	C301	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
PTMPJRH628	C302	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
PTMPJRH628	C303	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
PTMPJRH628	C305	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP
PTMPJRH628	C307	CXSL2H100D	C CERA	500V SL 10PF D (TAPPING)
PTMPJRH628	C308	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
PTMPJRH628	C311	CEXD1H229Q	C ELECTRO	50V RT 2.2MF (6.3X11) TP
PTMPJRH628	C401	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)
PTMPJRH628	C403	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
PTMPJRH628	C405	CEXF2C109V	C ELECTRO	160V RSS 1MF (6.3X11) TP
PTMPJRH628	C408	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
PTMPJRH628	C411	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
PTMPJRH628	C413	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)
PTMPJRH628	C418	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
PTMPJRH628	C451	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
PTMPJRH628	C452	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP
PTMPJRH628	C501	CMXL1J105J	C MYLAR	63V MEU 1MF J
PTMPJRH628	C507	CMXM2A224J	C MYLAR	100V 0.22MF J
PTMPJRH628	C508	CMXM2A224J	C MYLAR	100V 0.22MF J
PTMPJRH628	C509	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C511	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)
PTMPJRH628	C512	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP
PTMPJRH628	C513	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C516	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP
PTMPJRH628	C517	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)
PTMPJRH628	C518	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP
PTMPJRH628	C519	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP
PTMPJRH628	C520	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C525	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C555	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C575	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP
PTMPJRH628	C601	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
PTMPJRH628	C603	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP
PTMPJRH628	C604	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
PTMPJRH628	C634	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
PTMPJRH628	C701	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
PTMPJRH628	C702	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP
PTMPJRH628	C703	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C704	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP
PTMPJRH628	C705	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C721	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
PTMPJRH628	C722	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
PTMPJRH628	C724	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
PTMPJRH628	C725	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
PTMPJRH628	C726	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
PTMPJRH628	C727	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP

ELECTRICAL PARTS LIST

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJRH628	C729	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
PTMPJRH628	C732	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C780	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
PTMPJRH628	C810	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)
PTMPJRH628	C811	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)
PTMPJRH628	C845	CEXF2A100V	C ELECTRO	100V RSS 10MF (6.3X11) TP
PTMPJRH628	C871	CMXM2A154J	C MYLAR	100V 0.15MF J (TP)
PTMPJRH628	C876	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
PTMPJRH628	C878	CMXL2E104K	C MYLAR	250V MEU 0.1MF K
PTMPJRH628	C890	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
PTMPJRH628	C893	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
PTMPJRH628	I706	1S78DL33—	IC REGULATOR	S78DL33
PTMPJRH628	I803	1KA431L—-	IC	KA431L
PTMPJRH628	L601	58CX430599	COIL CHOKE	AZ-9004Y 940K TP
PTMPJRH628	L805	58CX430599	COIL CHOKE	AZ-9004Y 940K TP
PTMPJRH628	L901	5CPX121J—	COIL PEAKING	120UH J (RADIAL)
PTMPJRH628	Q201	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q401	TKTC3207—	TR	KTC3207 (TP)
PTMPJRH628	Q403	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q404	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q501	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q575	TKTA1275Y-	TR	KTA1275Y (TP)
PTMPJRH628	Q701	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q702	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q703	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q704	TKTA1266Y-	TR	KTA1266Y (TP)
PTMPJRH628	Q707	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q708	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q720	TKTA1266Y-	TR	KTA1266Y (TP)
PTMPJRH628	Q805	TKTC3205Y-	TR	KTC3205Y (TP)
PTMPJRH628	Q851	TKSC945CY-	TR	KSC 945C-Y (TAPPING)
PTMPJRH628	Q902	TKSC2330Y-	TR	KSC2330Y (TP)
PTMPJRH628	Q903	TKSC2330Y-	TR	KSC2330Y (TP)
PTMPJRH628	Q904	TKSC2330Y-	TR	KSC2330Y (TP)
PTMPJRH628	Q977	TKTA1266Y-	TR	KTA1266Y (TP)
PTMPJRH628	R301	RN01B471JS	R METAL FILM	1W 470 OHM J SMALL
PTMPJRH628	R302	RN01B471JS	R METAL FILM	1W 470 OHM J SMALL
PTMPJRH628	R303	RN01B129JS	R METAL FILM	1W 1.2 OHM J SMALL
PTMPJRH628	R305	RN01B331JS	R METAL FILM	1W 330 OHM J SMALL
PTMPJRH628	R403	RN01B562JS	R METAL FILM	1W 5.6K OHM J SMALL
PTMPJRH628	R410	RN02B560JS	R METAL FILM	2W 56 OHM J SMALL
PTMPJRH628	R411	RN02B150JS	R METAL FILM	2W 15 OHM J SMALL
PTMPJRH628	R413	RN01B229JS	R METAL FILM	1W 2.2 OHM J SMALL
PTMPJRH628	R414	RN01B229JS	R METAL FILM	1W 2.2 OHM J SMALL
PTMPJRH628	R418	RN02B569JS	R METAL FILM	2W 5.6 OHM J SMALL
PTMPJRH628	R420	RN02B620JS	R METAL FILM	2W 62 OHM J SMALL

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJRH628	R817	RN01B561JS	R METAL FILM	1W 560 OHM J SMALL
PTMPJRH628	R913	RN02B153JS	R METAL FILM	2W 15K OHM J SMALL
PTMPJRH628	R914	RN02B153JS	R METAL FILM	2W 15K OHM J SMALL
PTMPJRH628	R915	RN02B153JS	R METAL FILM	2W 15K OHM J SMALL
PTMPJRH628	SW701	5S50101090	SW TACT	THVH472GCA
PTMPJRH628	SW702	5S50101090	SW TACT	THVH472GCA
PTMPJRH628	SW703	5S50101090	SW TACT	THVH472GCA
PTMPJRH628	SW704	5S50101090	SW TACT	THVH472GCA
PTMPJRH628	SW705	5S50101090	SW TACT	THVH472GCA
PTMPJRH628	SW706	5S50101090	SW TACT	THVH472GCA
PTMPJRH628	X502	5XEX3R579C	CRYSTAL QUARTZ	HC-49/U 3.579545M (TP)
PTMPJRH628	Z501	5PXXT4R5MB	FILTER CERA	XT 4.5MB-TP
PTMPJRH628	ZZ200	PTMPJAH628	PCB MAIN AXIAL AS	DTQ-14V6MPG
PTMPJAH628	10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M
PTMPJAH628	20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M
PTMPJAH628	A001	4859817391	PCB MAIN	246X246 FR-1 1.6T
PTMPJAH628	C870	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z
PTMPJAH628	C891	CCZB1H821K	C CERA	50V B 820PF K AXIAL
PTMPJAH628	C892	CCZB1H471K	C CERA	50V B 470PF K (AXIAL)
PTMPJAH628	C894	CCZB1H333K	C CERA	50V B 0.033MF K AXL
PTMPJAH628	C902	CCZB1H271K	C CERA	50V B 270PF K
PTMPJAH628	C903	CCZB1H271K	C CERA	50V B 270PF K
PTMPJAH628	C904	CCZB1H271K	C CERA	50V B 270PF K
PTMPJAH628	D101	DUZ33B——	DIODE ZENER	UZ-33B
PTMPJAH628	D102	DUZ5R1B—-	DIODE ZENER	UZ-5.1B
PTMPJAH628	D221	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D301	D1N4004S—	DIODE	1N4004S
PTMPJAH628	D311	DBZX55C62-	DIODE ZENER	BZX55C-62
PTMPJAH628	D312	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	D401	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D405	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D406	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D407	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D408	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D409	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D502	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D503	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM
PTMPJAH628	D504	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D505	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM
PTMPJAH628	D541	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D571	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D572	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D573	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D574	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D701	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D704	DUZ3R9B—-	DIODE ZENER	UZ-3.9B

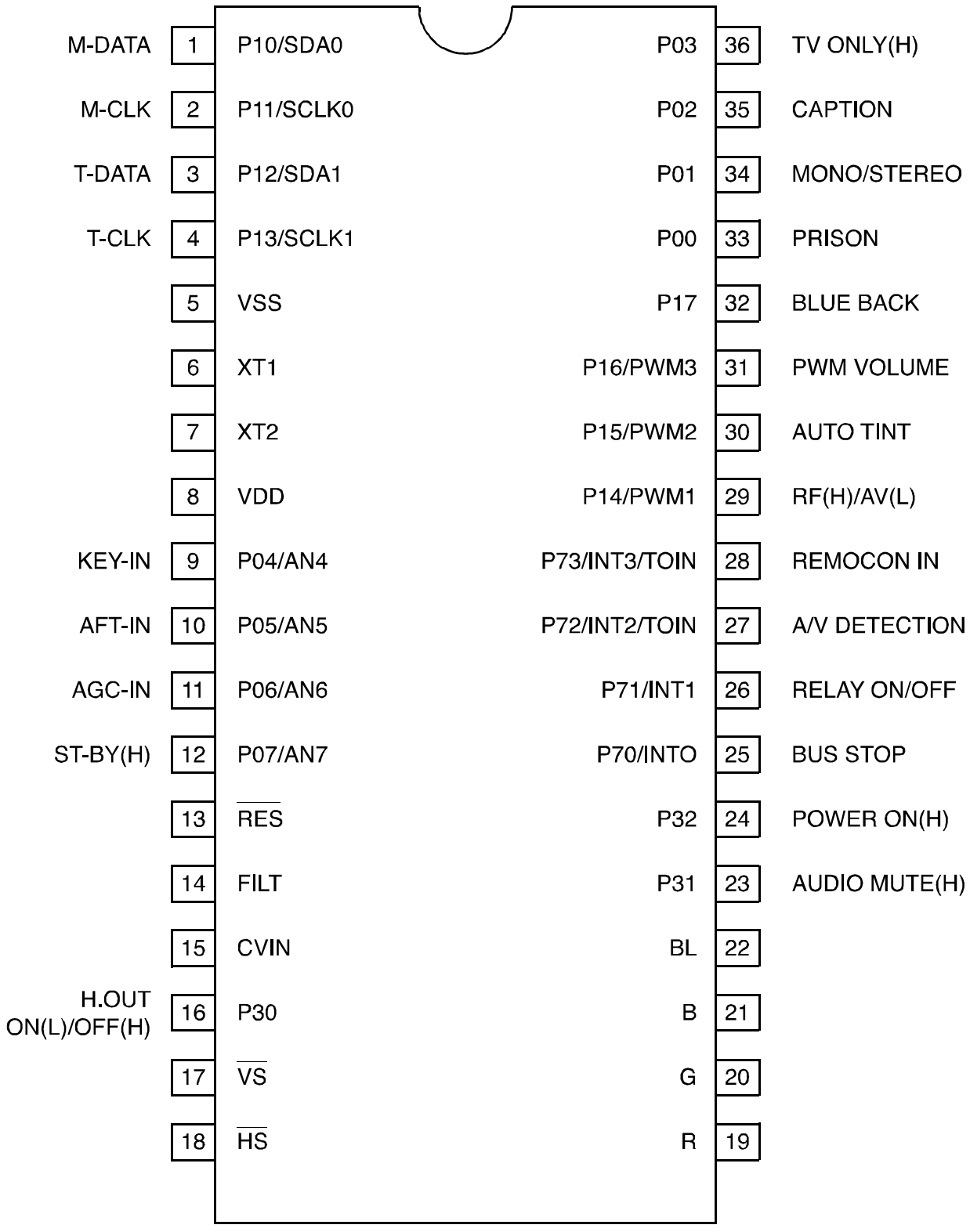
Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJAH628	D721	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D722	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D723	DUZ3R9B—-	DIODE ZENER	UZ-3.9B
PTMPJAH628	D724	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D725	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D790	D1N4148—-	DIODE	1N4148 (TAPPING)
PTMPJAH628	D804	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D809	DUZ6R8BM—	DIODE ZENER	UZ-6.8BM
PTMPJAH628	D811	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D812	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D813	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D841	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D851	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM
PTMPJAH628	D878	D1N4937G—	DIODE	1N4937G (TAPPING)
PTMPJAH628	D881	DLT2A05G—	DIODE	LT2A05G (TP)
PTMPJAH628	D890	DUZ5R6BM—	DIODE ZENER	UZ-5.6BM
PTMPJAH628	J001	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J009	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J025	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J050	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J057	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J123	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J126	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J127	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J128	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J129	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J130	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J131	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J132	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J133	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J134	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J135	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J136	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J138	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J139	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J140	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J141	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J142	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J143	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J144	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J145	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J146	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J147	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J148	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J149	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J150	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJAH628	J151	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J152	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J153	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J154	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J155	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J156	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J157	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J158	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J159	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J160	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J161	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J162	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J163	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J164	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J165	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J166	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J167	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J168	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J169	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J170	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J171	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J172	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J173	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J174	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J175	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J177	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J178	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J179	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J180	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J181	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J182	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J190	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J191	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J197	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J199	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J200	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J201	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J202	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J502	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J511	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J533	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J551	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J601	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J705	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J709	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J711	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJAH628	J727	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J750	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J758	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J801	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J802	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J803	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J804	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J805	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J806	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J807	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J901	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J902	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J903	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J904	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J922	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J923	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J925	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J926	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J927	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J928	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J953	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J954	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J959	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J963	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J966	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	J967	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	L111	5CPZ568M02	COIL PEAKING	0.56UH M (AXIAL 3.5MM)
PTMPJAH628	L112	5CPZ569K02	COIL PEAKING	5.6UH K (AXIAL 3.5MM)
PTMPJAH628	L502	5CPZ470K04	COIL PEAKING	47UH 10.5MM K (LAL04TB)
PTMPJAH628	L533	5CPZ150K02	COIL PEAKING	15UH K (AXIAL 3.5MM)
PTMPJAH628	L701	5CPZ220K02	COIL PEAKING	22UH K (AXIAL 3.5MM)
PTMPJAH628	L720	5CPZ569K02	COIL PEAKING	5.6UH K (AXIAL 3.5MM)
PTMPJAH628	L721	5CPZ569K02	COIL PEAKING	5.6UH K (AXIAL 3.5MM)
PTMPJAH628	L722	5CPZ569K02	COIL PEAKING	5.6UH K (AXIAL 3.5MM)
PTMPJAH628	L807	5MC0000100	COIL BEAD	HC-3550
PTMPJAH628	L811	5MC0000100	COIL BEAD	HC-3550
PTMPJAH628	L841	5MC0000100	COIL BEAD	HC-3550
PTMPJAH628	R165	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J
PTMPJAH628	R227	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
PTMPJAH628	R351	RD-4Z682J-	R CARBON FILM	1/4 6.8K OHM J
PTMPJAH628	R352	RN-4Z1603F	R METAL FILM	1/4 160K OHM F
PTMPJAH628	R353	RN-4Z1502F	R METAL FILM	1/4 15K OHM F
PTMPJAH628	R359	RD-4Z273J-	R CARBON FILM	1/4 27K OHM J
PTMPJAH628	R360	RD-4Z333J-	R CARBON FILM	1/4 33K OHM J
PTMPJAH628	R361	RD-4Z222J-	R CARBON FILM	1/4 2.2K OHM J
PTMPJAH628	R362	RD-4Z113J-	R CARBON FILM	1/4 11K OHM J

Z_ASSY_CODE	LOC	PART NUMBER	PART NAME	PARTS_DESCR
PTMPJAH628	R401	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J
PTMPJAH628	R405	RD-2Z751J-	R CARBON FILM	1/2 750 OHM J
PTMPJAH628	R416	RD-2Z121J-	R CARBON FILM	1/2 120 OHM J
PTMPJAH628	R417	RD-4Z302J-	R CARBON FILM	1/4 3K OHM J
PTMPJAH628	R451	RD-4Z153J-	R CARBON FILM	1/4 15K OHM J
PTMPJAH628	R452	RD-4Z113J-	R CARBON FILM	1/4 11K OHM J
PTMPJAH628	R501	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J
PTMPJAH628	R502	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J
PTMPJAH628	R554	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
PTMPJAH628	R569	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J
PTMPJAH628	R602	RD-2Z271J-	R CARBON FILM	1/2 270 OHM J
PTMPJAH628	R604	RD-4Z682J-	R CARBON FILM	1/4 6.8K OHM J
PTMPJAH628	R703	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J
PTMPJAH628	R776	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J
PTMPJAH628	R777	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
PTMPJAH628	R780	RD-4Z471J-	R CARBON FILM	1/4 470 OHM J
PTMPJAH628	R789	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
PTMPJAH628	R790	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
PTMPJAH628	R796	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J
PTMPJAH628	R819	RD-4Z561J-	R CARBON FILM	1/4 560 OHM J
PTMPJAH628	R820	RD-4Z392J-	R CARBON FILM	1/4 3.9K OHM J
PTMPJAH628	R868	RN-4Z2201F	R METAL FILM	1/4 2.20K OHM F
PTMPJAH628	R869	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
PTMPJAH628	R871	RD-4Z184J-	R CARBON FILM	1/4 180K OHM J
PTMPJAH628	R872	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J
PTMPJAH628	R874	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
PTMPJAH628	R875	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING
PTMPJAH628	R876	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
PTMPJAH628	R877	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
PTMPJAH628	R878	RN-4Z1003F	R METAL FILM	1/4 100K OHM F
PTMPJAH628	R879	RN-4Z1502F	R METAL FILM	1/4 15K OHM F
PTMPJAH628	R888	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K
PTMPJAH628	R890	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J
PTMPJAH628	R892	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J
PTMPJAH628	R893	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J
PTMPJAH628	R894	RD-4Z479J-	R CARBON FILM	1/4 4.7 OHM J
PTMPJAH628	R901	RD-4Z474J-	R CARBON FILM	1/4 470K OHM J
PTMPJAH628	R910	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J
PTMPJAH628	R911	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J
PTMPJAH628	R912	RD-2Z332J-	R CARBON FILM	1/2 3.3K OHM J
PTMPJAH628	R978	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
PTMPJAH628	R979	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J

U-COM(I701)


M-DATA 1 P10/SDA0
M-CLK 2 P11/SCLK0
T-DATA 3 P12/SDA1
T-CLK 4 P13/SCLK1
5 VSS
6 XT1
7 XT2
8 VDD
KEY-IN 9 P04/AN4
AFT-IN 10 P05/AN5
AGC-IN 11 P06/AN6
ST-BY(H) 12 P07/AN7
13 RES
14 FILT
15 CVIN
H.OUT ON(L)/OFF(H) 16 P30
17 VS
18 HS
P03 36 TV ONLY(H)
P02 35 CAPTION
P01 34 MONO/STEREO
P00 33 PRISON
P17 32 BLUE BACK
P16/PWM3 31 PWM VOLUME
P15/PWM2 30 AUTO TINT
P14/PWM1 29 RF(H)/AV(L)
P73/INT3/TOIN 28 REMOCON IN
P72/INT2/TOIN 27 A/V DETECTION
P71/INT1 26 RELAY ON/OFF
P70/INTO 25 BUS STOP
P32 24 POWER ON(H)
P31 23 AUDIO MUTE(H)
BL 22
B 21
G 20
R 19
X'TAL:32.768 KHz

1. Abstract.

This specification is 1-Tuner Mono Model for North/South America, CCD 1-Chip MICOM LC863228A.
This MICOM supports the tuning and CCD system for NTSC only.

2. H/W Outline.

1) ROM : 28,672 x 8bits.tsc
: 15,872 x 8 bits for CGROM.
2) RAM : 512 x 8bits.
: 352 x 9bits.(for CRT Display)
3) OSD Function.
- Screen Display. : 36 characters x 16 lines.(by software)
- RAM : 352 words. (9 bits per word)
  Display area. : 36 words. x 8 lines.
  1st control area. : 8 words. x 8 lines.
- Characters.
  244 patterns programmable.
  Up to 244 kinds of 16 x 17 dot characters.
  Up to 244 kinds of 8 x 9 dot characters.
  or
  Up to 244 kinds of 16 x 32 dot characters used 16K bytes.
- Various characters attributes.
  Character colors. : 16 colors
  Character background colors. : 16 colors
  Fringe / shadow colors. : 16 colors
  Full screen colors. : 16 colors
  Rounding.
  Underline.
  Italic character.(slanting)
- Attribute can be changed without spacing.
- Vertical display start line number can be set for each row independently.(Row can be overlapped.)
- Horizontal display start position can be set for each row independently.
- Different display modes can be set for each row independently.
  Caption and Text mode/ OSD mode 1/ OSD mode 2(Quarter size)/ Simplified graphic mode.
- Ten character sizes.
  Horiz. x Vert. = (1x1),(1x2),(2x2),(2x4),(0.5x0.5)
  (1.5x1),(1.5x2),(3x2),(3x4),(0.75x0.5)
- Shuttering and scrolling on each row.

3. System Feature.

1) The system for TV tuning is Frequency Synthesis type.
2) Closed Captions function is interior designed.

3) On Screen Displays function is interior designed.
4) Package. : 36 PIN SDI P.
5) Tuner (Pre-scaler.) : I^2C Bus.
/PLL IC : TAU 6014-S(SIEMENS).
6) Remocon. : The IC of Transmission (MITSUBISHI M50560)
7) E^2PROM. : 24C04(I^2C Bus) ◊ Apply one byte Read/Write mode.
8) 6-Local Key. : A/D Input Control.(Power, Ch Up/Down, Vol Up/Down, Menu)
9) Option S/W : Port Input Option Check.
10) IF/V/C/D IC :DTC814(LA76 814)

4. Function.

1) C. C. D. function.
- A section of C. C. D. operates FCC based specification.

2) C. C. D. controlled function.
- Closed Caption Mode. (Off<-->C1<-->C2<-->T1<-->T2<-->Off)
- CC On Mute.(Off <-->C1<-->C2<-->Off)
- Closed Caption is prior to CC On Mute.

3) Tuning Function.
- I^2C Bus.
- PLL IC Interface.
- FS 181 Channel (AIR 2-69CH, CABLE 1-125CH)
- AFT Operation(Fine Tuning) : -2.5MHz to +2.5MHz
- AIR/CABLE (STD, HRC, IRC). -> Cable 5 & 6CH can be precisely tuned by more extended AFT range.
(-2.5MHz to +3.5MHz)
- Memorize Channels.(If a channel is broadcasting, the channel is memorized.)
- Direct Tuning(0~ 9 KEY)
- Channel Up/Down.(Memorized Channels) -> The CH Up/Down buttons on the Remocon and on the front panel are same function.
- Search Channel Up/Down.(Does not operate If no channels, or only one channel is set in memory)
- Channel Memory.(ADD/DELETE)
- Channel Review Function.
- Last Channel Memory Function.

4) OSD Function.
- In Line(Video) Mode, Things(Items) that is concerned with Air and Cable disappear in the Menu.
- Channel, AV display.
- Small & Graphic ICON Menu.
- Volume / Picture control --> I^2C Bus Control

5) The Others Function.
- Video/Audio Mute Function.
- If a channel stops broadcasting for 15 minutes , the TV will automatically shut off .

- Auto Power On Function.(Power Restore function in the Special Menu)
- Heat Run Function. --- OSD White Back-Ground
- Sleep Timer.
- Wake Up Time Function.
- Off Time Function.
- Remote Reception & Control.
- Auto Tint.---------- (Option)
- Power Restore.
- Input(TV/Line) Controlled function. ---------- (Option)
- Reception.(Air/Cable : Factory Initial Condition)
- Blue Background.----------(Option)
- 3-Language (North America : ENG/SPA/FRA, South America : ENG/SPA/POR).
- E^2PROM Interface (I^2C Bus Control)
- CH 6 TRAP Function.(IS-31)
- PLL IC Band Data.(Control Byte 2-->P3~P0)

  VHF L : 1

  VHF H : 2

  CH6 TRAP : 5 (IS-31) AIR(Cable) CH 6 Only

  UHF : 8

5. The Table of Option and Schedule.

Model Name	Pin	Option	Application	Reference
CN - 001N	#30	Auto Tint	O	- Low(DC_0V) : ON(Auto Tint)
				- High(DC_5V) : OFF
	#32	Bule Back	O	- Low(DC_0V) : Blue Back
				- High(DC_5V) : No Blue Back
	#33	Prison	O	- Low(DC_0V) :Normal
				- High(DC_5V) : Prison
	#34	Mono/Stereo	O	- Low(DC_0V) : Mono
				- High(DC_5V) :Stereo
	#35	Caption	X	- No Use.
				- No Use.
	#36	TV only	O	- Low(DC_0V) :TV/Video
				- High(DC_5V) :TV/Only
Tatal Sun			6	- Use. (No Use.)

6. Pin Description

<table>
<tr><th>PIN</th><th>Terminal</th><th>Name</th><th>Explanation</th><th>Remarks</th></tr>
<tr><td>1</td><td>P10/SDA0</td><td>ROM Data Main IC Data</td><td rowspan="4">6 bit input/output port
Input/output can be specified for each bit
Other function.
<table><tr><td>P10</td><td>IIC0 data I/O</td></tr><tr><td>P11</td><td>IIC0 clock output.</td></tr><tr><td>P12</td><td>IIC1 data I/O</td></tr><tr><td>P13</td><td>IIC1 clock output.</td></tr></table></td><td rowspan="4"></td></tr>
<tr><td>2</td><td>P11/SCLK0</td><td>ROM CLK Main IC CLK</td></tr>
<tr><td>3</td><td>P12/SDA1</td><td>Tuner Data</td></tr>
<tr><td>4</td><td>P13/SCLK1</td><td>Tuner CLK</td></tr>
<tr><td>5</td><td>VSS</td><td>GND</td><td>GND
Negative power supply.</td><td></td></tr>
<tr><td>6</td><td>XT1</td><td>XT1</td><td rowspan="2">It uses 32.768KHz X-TAL.
10 pin is input terminal for crystal oscillator.
11 pin is output terminal for crystal oscillator.</td><td rowspan="2"></td></tr>
<tr><td>7</td><td>XT2</td><td>XT2</td></tr>
<tr><td>8</td><td>VDD</td><td>VDD</td><td>+5V (0.5V)
Positive power supply.</td><td></td></tr>
<tr><td>9</td><td>P04/AN4</td><td>KEY-IN</td><td>Power, Ch up/down, Vol up/down, Menu</td><td></td></tr>
<tr><td>10</td><td>P05/AN5</td><td>AFT-IN</td><td>DC value that comes from the 10 pin of LA76814</td><td></td></tr>
<tr><td>11</td><td>P06/AN6</td><td>AGC-IN</td><td>Connect this port to AGC of Tuner
Default Voltage : 3.75V
Variable Voltage : 3.25V, 3.5V, 4.0V</td><td></td></tr>
<tr><td>12</td><td>P07/AN7</td><td>ST-BY(H)</td><td>Use only japan Model.
This port uses when is Stand - By status
Condition : Input AC Power On
Power off : High (DC 5V) Output. (Red)
Power on : Low (DC 0V) Output.</td><td></td></tr>
<tr><td>13</td><td>/FES</td><td>/RES</td><td>Reset terminal.
Active Low</td><td></td></tr>
<tr><td>14</td><td>FILT</td><td>Filter</td><td>Filter terminal for PLL
Output terminal</td><td></td></tr>
<tr><td>15</td><td>CVIN</td><td>CVSB IN</td><td>Video signal input terminal</td><td></td></tr>
<tr><td>16</td><td>P01</td><td>TV/VID</td><td>TV Mode : High Line(Video) Mode : Low</td><td></td></tr>
<tr><td>17</td><td>/VS</td><td>/VS</td><td>Vertical synchronization signal input terminal</td><td></td></tr>
<tr><td>18</td><td>/HS</td><td>/HS</td><td>Horizontal synchronization signal input terminal</td><td></td></tr>
<tr><td>19</td><td>R</td><td>R</td><td>Red output terminal of RGB image</td><td></td></tr>
<tr><td>20</td><td>G</td><td>G</td><td>Green output terminal of RGB image</td><td></td></tr>
</table>

PIN	Terminal	Name	Explanation
21	B	B	Blue output terminal of RGB image
22	BL	BL	Fast blanking control signal Switch TV image Signal and caption / OSD image signal Output terminal
23	P31	Audio Mute	Use only read data of LA76814/10
24	P32	Power On	Use when does power off/on Power off: Output Low(DC 0V) Power on: Output High(DC 5V)
25	P70/INT0	Bus Stop	No Use
26	P71/INT1	Relay On/Off	Relay On/Off Terminal
27	P72/INT2	A/V Detection	Detect port of Front A/V
28	P73/INT3	Remocon In	Input of Remocon Signal
29	P14/PWM1	RF(H)/AV(L)	High: RF only mode Low: RF/AV mode
30	P15/PWM2	AUTO TINT	Low (DC-0V) : On(Auto Tint) High (DC-5V) : Off
31	P16/PWM3	PWM VOLUME	Use only to control Sound of Stereo mode
32	P17	BLUE BACK	High (DC-5V) : No Blue Back Low (DC-0V) : Blue Back
33	P00	PRISON	Low (DC-0V) : Normal High (DC-5V) : Prison
34	P01	MONO/STEREO	Low (DC-0V) : Mono High (DC-5V) : Stereo
35	P02	CAPTION	No Use
36	P03	TV ONLY(H)	Low (DC-0V) : TV/Video High (DC-5V) : TV Only

Port 00~03: The Port characteristic is specified by the software and the use of pull-up resistors for each port is specified by the option SW.
Port 10~13: The Port characteristic and the use of pull- up resistors for each port is specified by the software.
* The Port characteristic means I/O characteristic and Port description - CMOS or N-channel open drain needed pull-up resistors.

Teriminal	I/O	Pull- up resistor status at selection pull-up option.
Port 0	I	Pull- up resistor OFF, ON after reset release.
Port 1	I	Programmable pull- resistor OFF.

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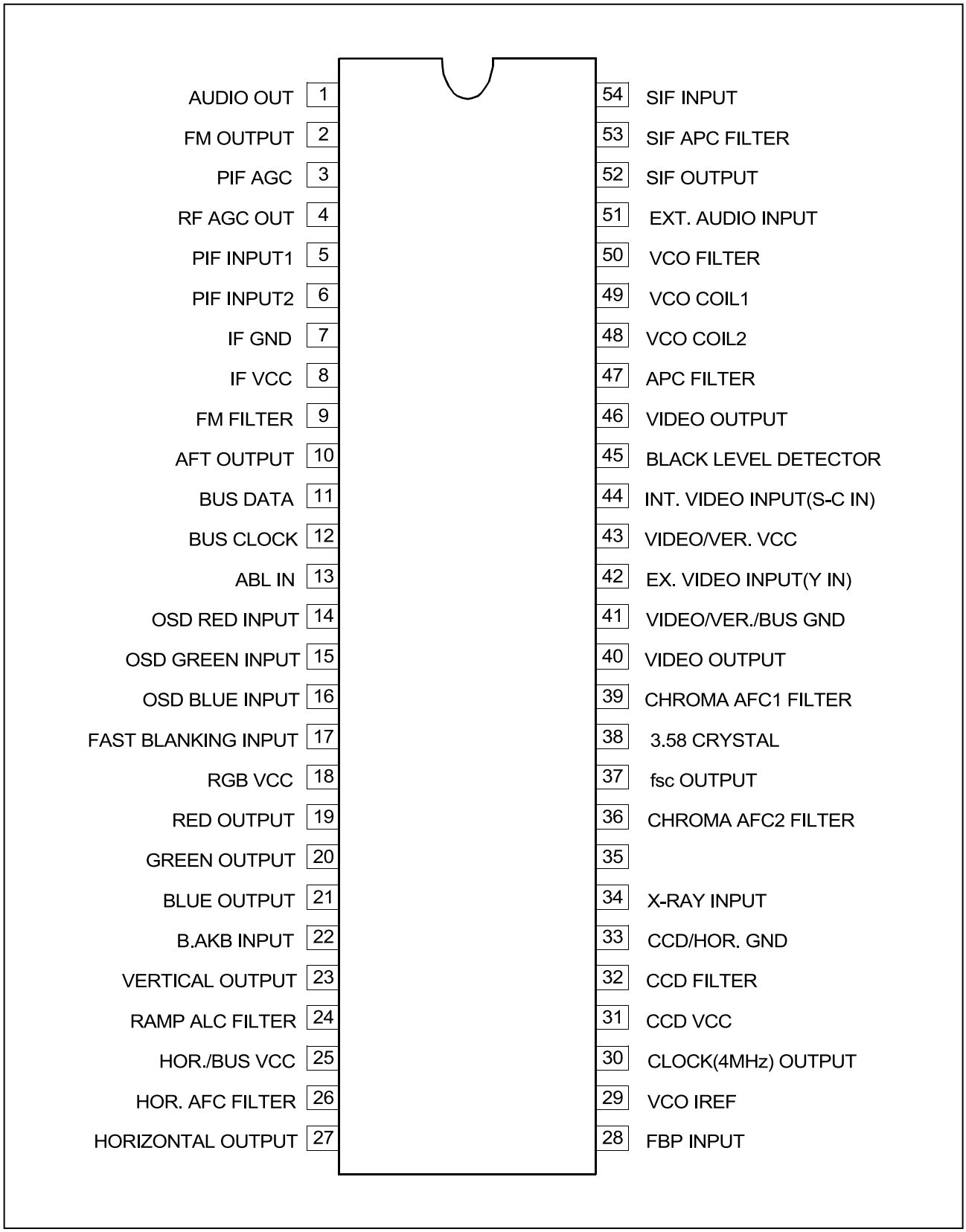
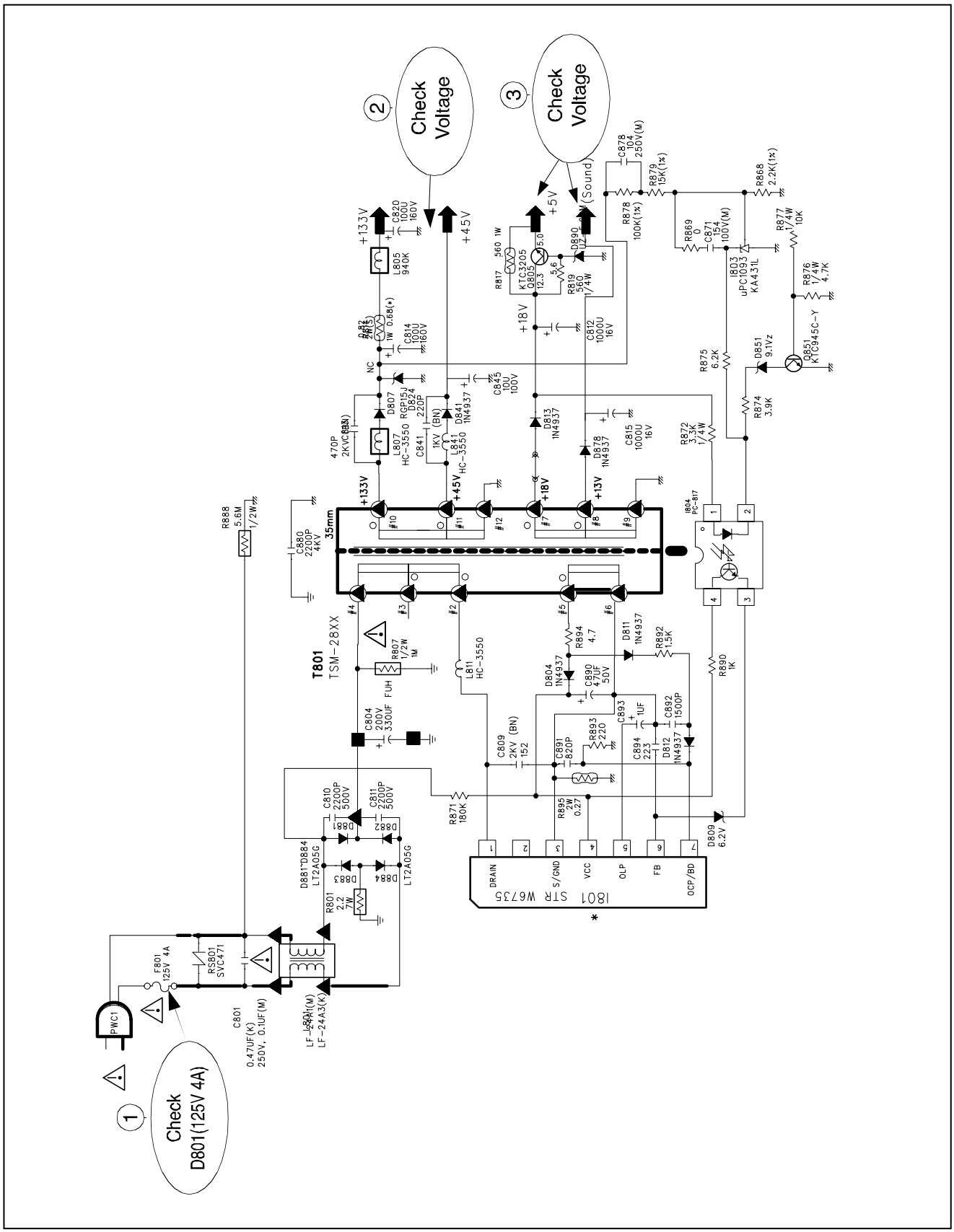
DCT814(LA76814) : IC VIDEO PROCESSOR

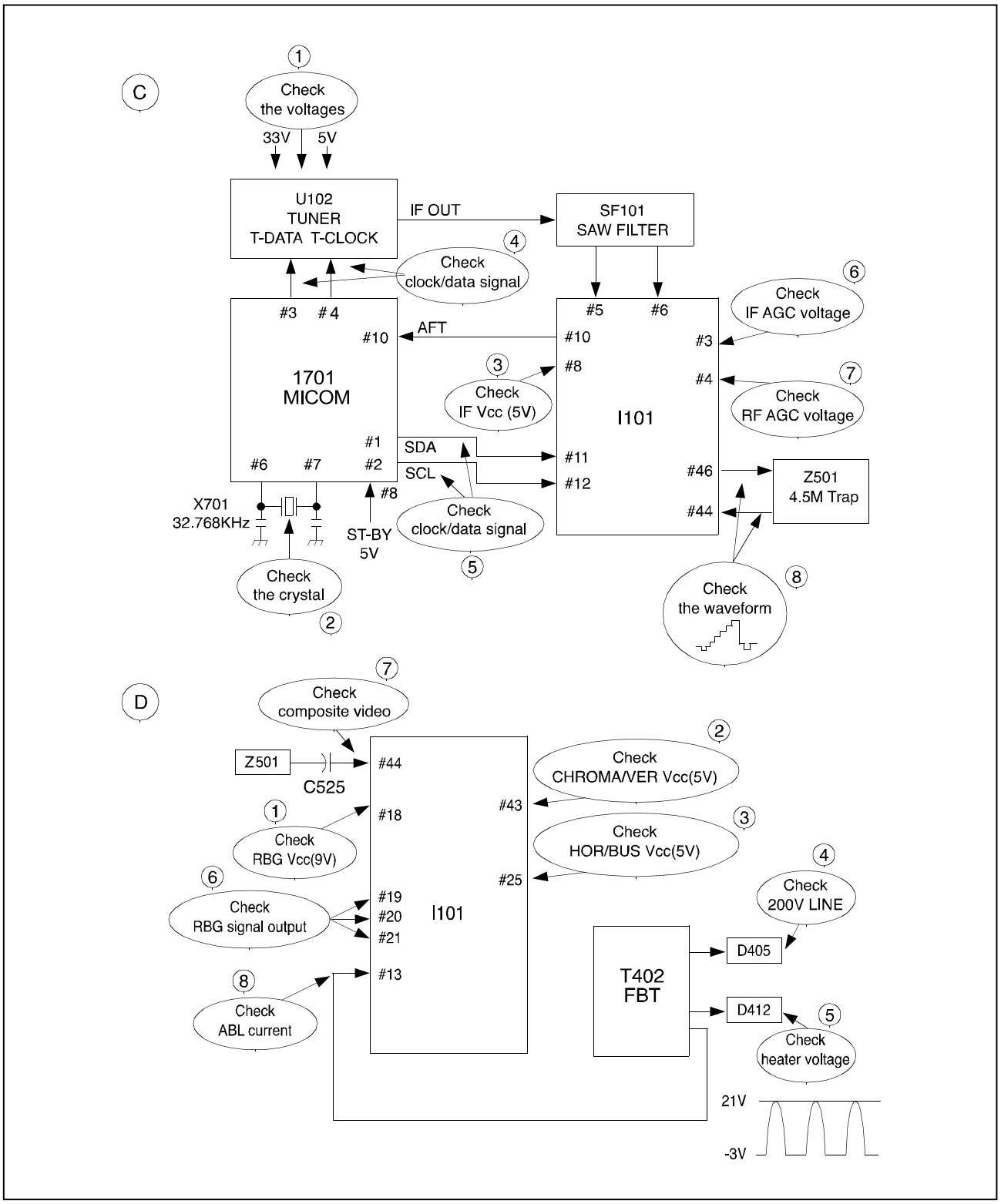


1. NO POWER


Check D801(125V 4A)
Check Voltage
Check Voltage
(Sound)
T801 TSM-28XX
I801 STR W6735
DRAIN
S/GND
VCC
OLP
FB
OCP/BD
+133V
+45V
+18V
+13V
+5V
35mm

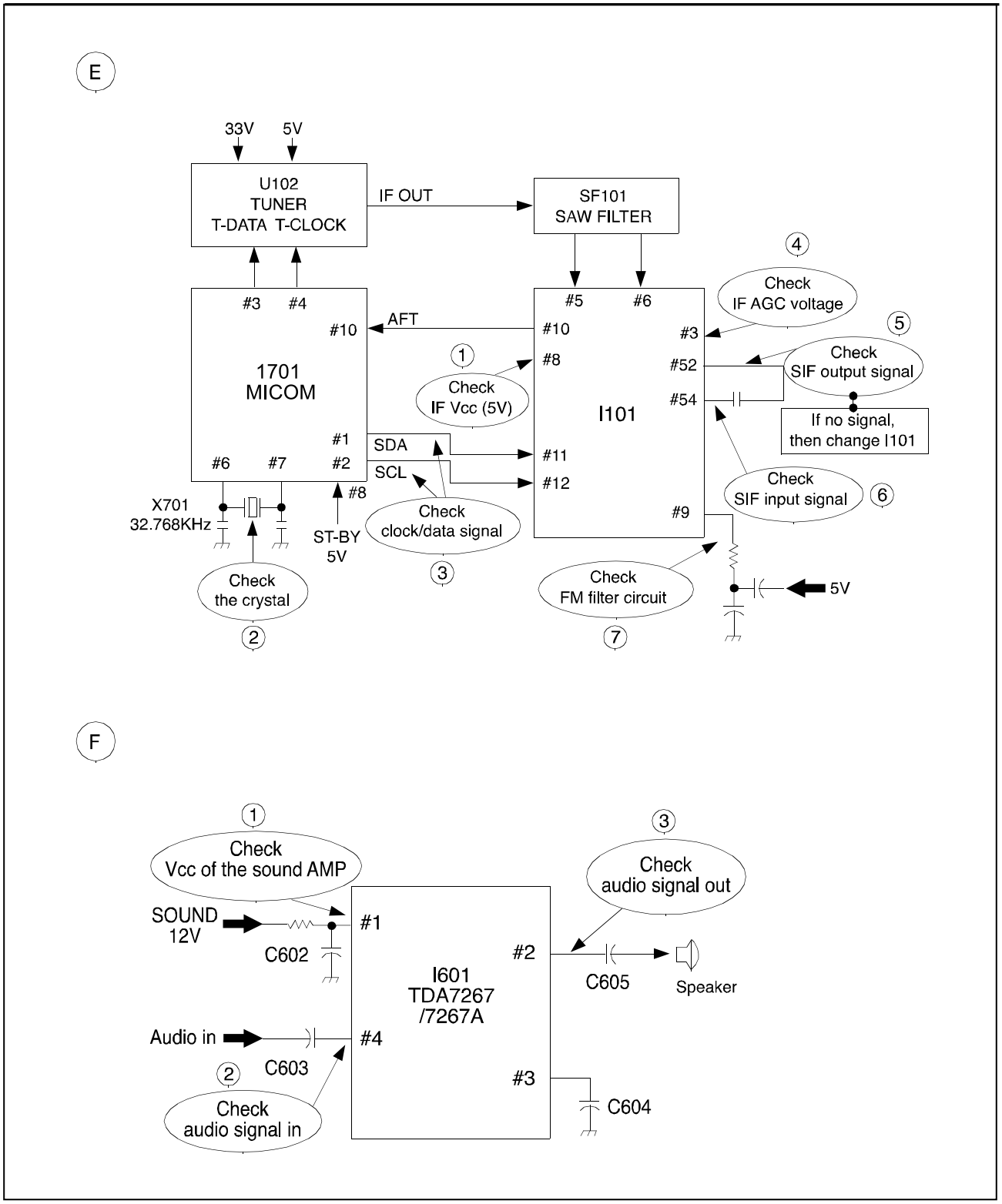
2. NO PICTURE

Check the waveform of I101 #46	NG : GO to the figure ⓒ
	OK : Go the figure ⓓ



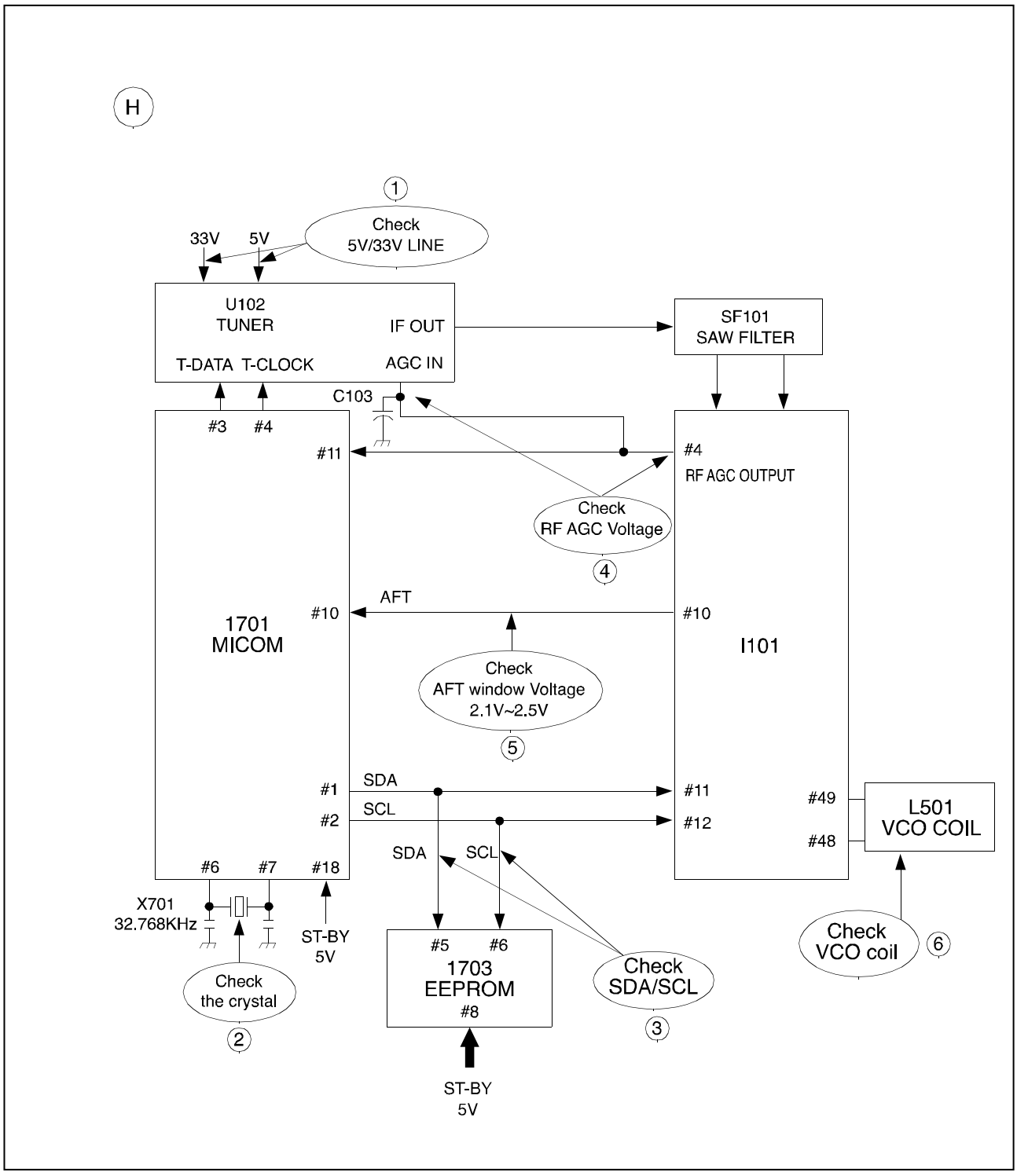
3. NO SOUND

Check audio output signal of I101 #1	NG : Go to the figure ⓔ
	OK : Go to the figure ⓕ ⓖ

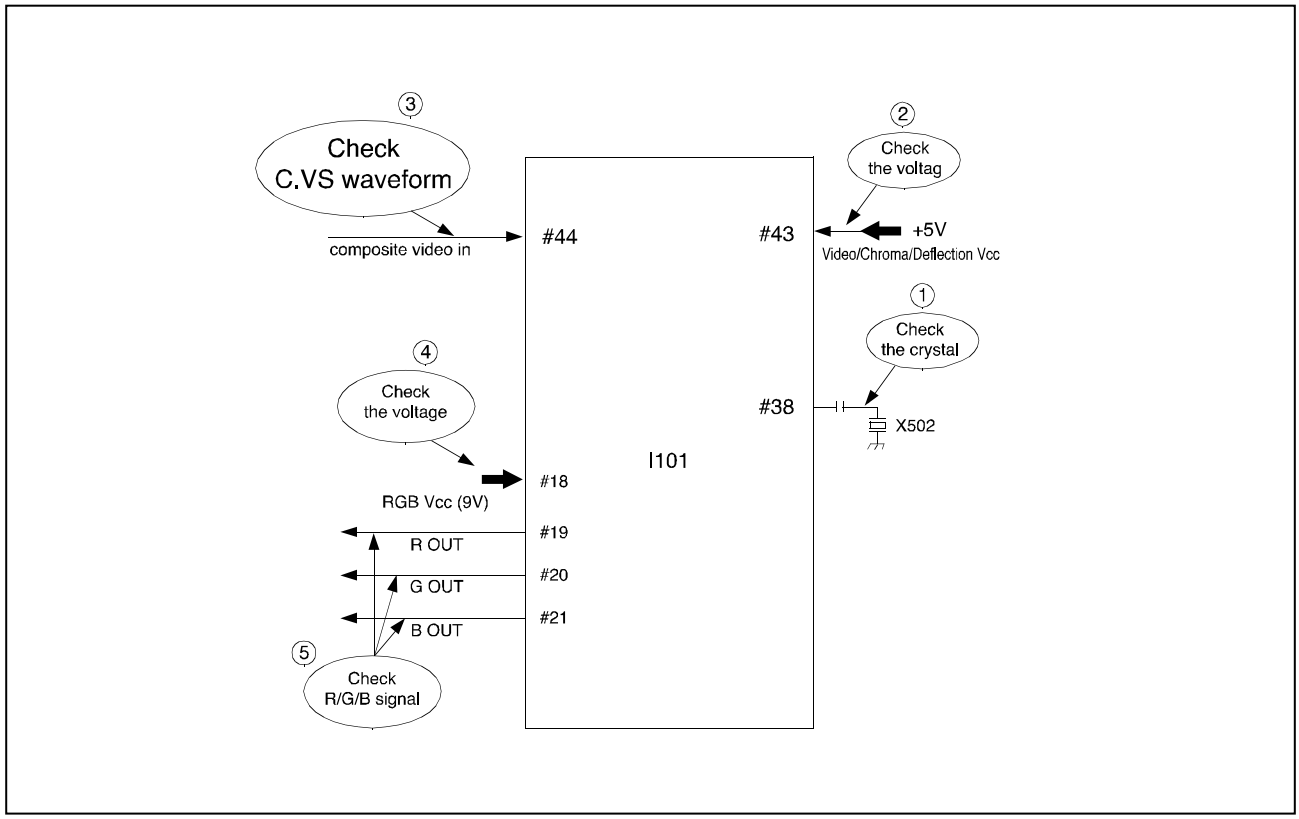


4. CH DON'T STOP

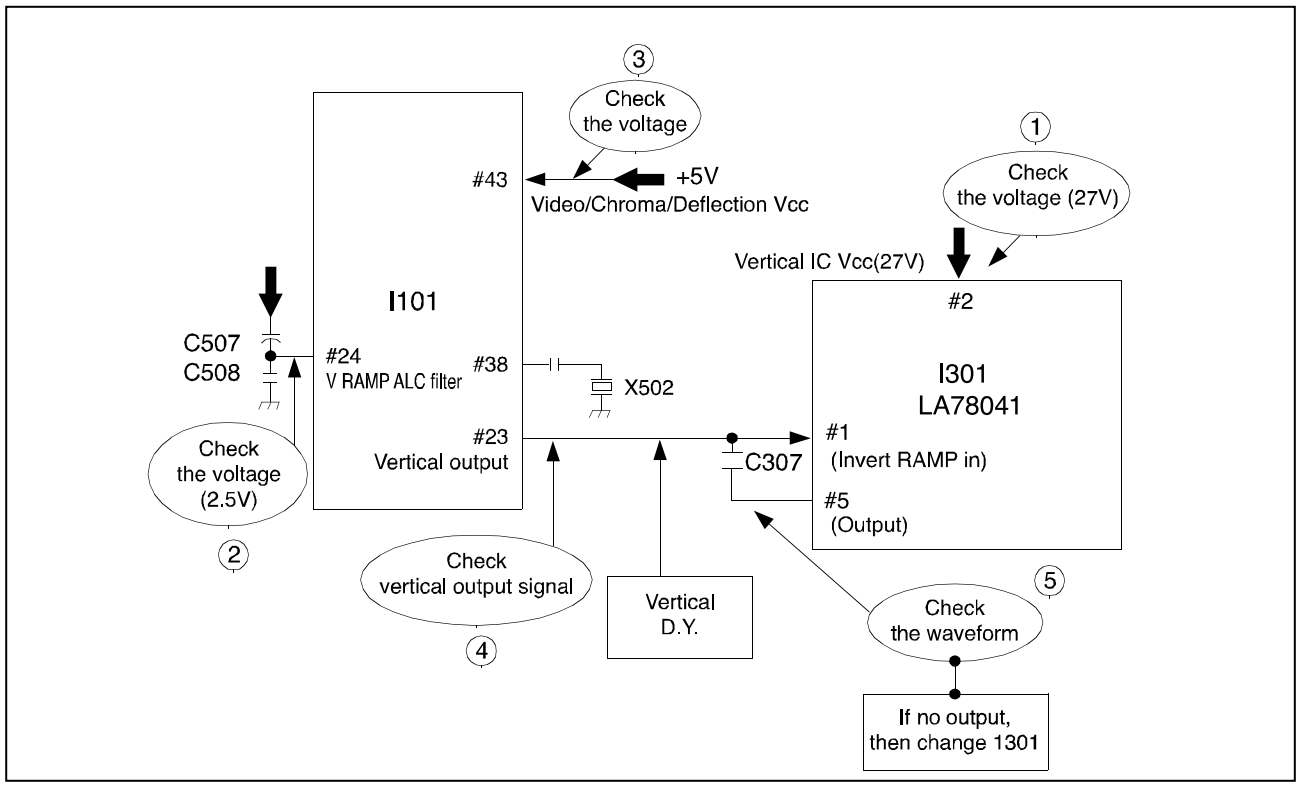
Check the input signal conditions	NG : Loss of signal or weak signal
	OK : Go to the figure ⓗ



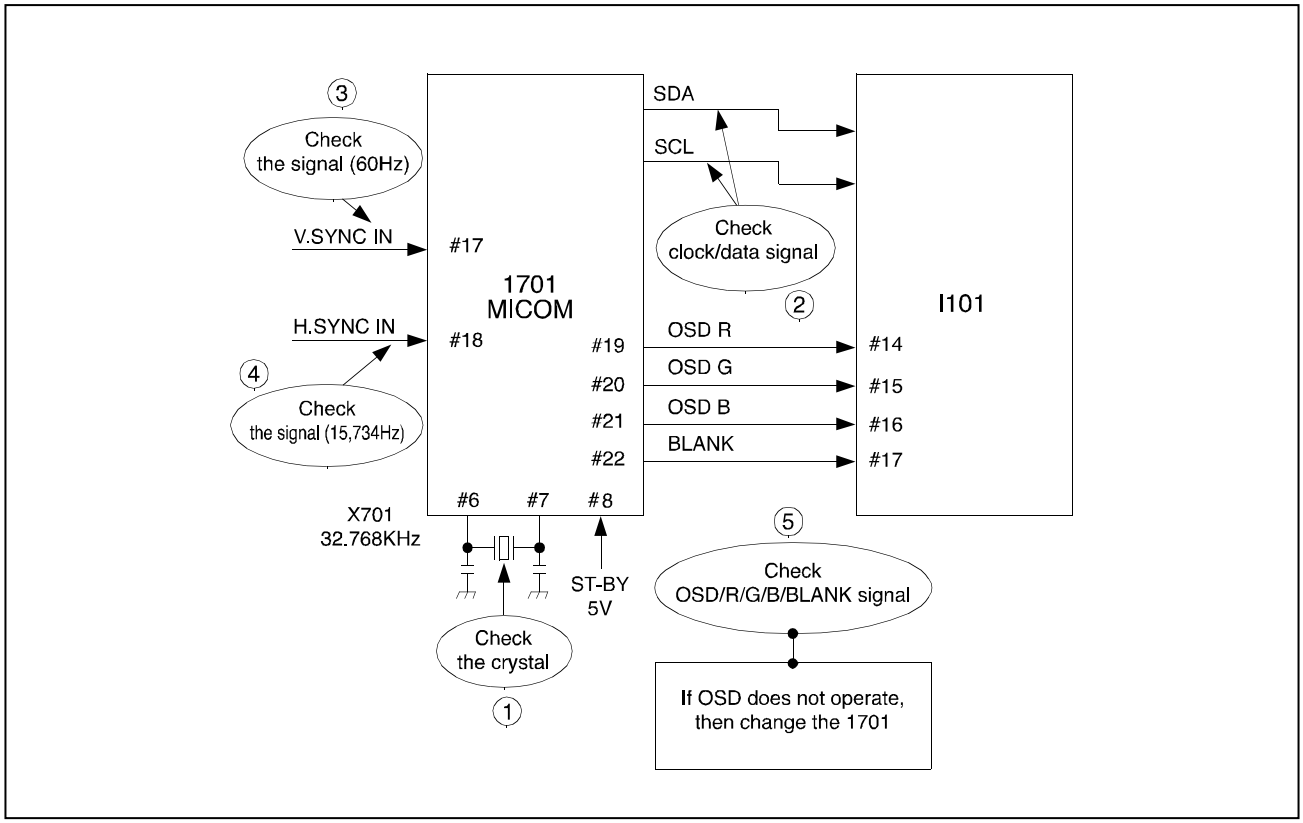
5. NO COLOR



6. NO VERTICAL DEFLECTION



7. NO ON-SCREEN DISPLAY



8. REMOTE CONTROL DOES NOT OPERATE